

# Jefferson Middle School



“Education - Our Safeguard for Liberty”  
Jefferson

Program of Studies  
2010 - 2011

# THE ARLINGTON MIDDLE SCHOOL PROGRAM OF STUDIES

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*Welcome to Jefferson Middle School*  
An International Baccalaureate World School

*The staff has designed our program for grades six, seven, and eight to best promote the academic, social, emotional, and physical growth of all students. Our Exemplary Project, the International Baccalaureate Middle Years Programme (IBMYP) supports this student centered approach to learning.*

*Students explore their academic subjects through the context of the IBMYP Areas of Interaction. Five themes - approaches to learning, community and service, human ingenuity, environment, and health and social education - are integrated into the subject areas and encourage students to think about the connections between subject content and their life experiences.*

*The teachers, staff, students, parents, and community work together to provide an atmosphere of acceptance, understanding, and respect for a diverse population. Through effective and comprehensive learning in a caring environment, students have the opportunity to become thoughtful, productive, tolerant, and contributing members of the global society.*

*It is our goal, at Jefferson, to foster the best learning environment for each student. Interdisciplinary teacher teaming, flexible block scheduling, teacher - advisor programs, exploratory options, and an extensive after - school activity program are integral parts of a student's experience.*

*We encourage parents to stay involved with their children during these crucial years of middle school. Through the cooperation of home and school, our students will benefit from the educational opportunities of the program at Jefferson.*

*We look forward to a year of growth and achievement for each student at Jefferson.*

*Jefferson Middle School Staff*

# **MIDDLE SCHOOL PROGRAM OF STUDIES**

## **STATEMENT OF PURPOSE**

Arlington Middle Schools will ensure a child - centered approach to continuous learning, social development, emotional growth, and physical well - being of young adolescents from ten to fourteen years of age. The middle school, with the active support of teachers, staff, parents, community, and students, will provide an atmosphere of acceptance, understanding, and respect for a diverse population.

The Arlington Middle School, Grades 6 - 8, will provide early adolescents with an environment in which to learn and grow during the transitional years between elementary and high school. The intellectual, social, emotional, and physical growth of middle school children will be the focus of curriculum and staff development. Interdisciplinary teacher teaming, flexible block scheduling, teacher advisor programs, exploratory options, and an extensive after - school activity program will be integral parts of the middle schools. Through effective and comprehensive academic learning in a caring environment, students will have the opportunity to become thoughtful, productive, and contributing members of society.

## PREFACE

In implementing the Statement of Purpose, each individual Arlington Middle School is organized to promote the intellectual, physical, social, and emotional growth of each child. The Program of Studies describes the academic programs, services, and activities the middle schools offer in each of these areas for students in Grades 6, 7 and 8.

In addition to local standards, the Virginia State Board of Education and the Southern Association of Colleges and Schools establish accreditation standards designed to provide a foundation for quality education. Accreditation standards give schools guidance and direction in their continuing efforts to offer educational programs to meet the needs, interests, and aspirations of all students. The accreditation standards are designed to achieve the following objectives:

1. Seek to ensure that schools provide educational programs of high quality for all students
2. Encourage continuous appraisal and improvement of the school program
3. Foster public confidence
4. Assure recognition by other institutions of learning

## **INTELLECTUAL GROWTH**

A primary task of education is to foster intellectual growth through the learning activities which staff members design and direct for students. In the middle school, students in Grades 6, 7, and 8 pursue a core curriculum of academic subjects (English, mathematics, science, and social studies, with reading at Grade 6) during a prescribed block of time and then study exploratory and non - core subjects during the rest of the day.

## **THE CORE CURRICULUM**

Students are assigned in groups to teams for their core subjects. This means that approximately fifty to one hundred and twenty - five students of a single grade level are assigned to a single team of two to five teachers who teach the core subjects. These teachers cooperate by meeting during a team planning period when they discuss students' instructional needs, plan upcoming activities, divide the core block of time according to subject needs, and integrate the curricular areas. Teacher teams integrate subjects when appropriate by designing learning experiences which emphasize the interdependence of curricula, perhaps through projects, common skill instruction, related concepts, or thematic units. Teams also infuse career education activities into the core curriculum. Although students are assigned to specific teams, teachers within the team regroup students as appropriate for particular instructional activities. Teachers make such regrouping decisions during team meetings, basing their decisions on the needs and progress of individual students. Students who need remediation in particular skill areas receive remediation during the core period of time or through other courses and / or programs.

## **THE EXPLORATORY / ELECTIVES PROGRAM**

The middle school provides a variety of learning experiences through the exploratory / electives courses. Through these courses, students have opportunities to develop new interests and discover new abilities with the specialized staff and facilities of the middle school. Elective course offerings depend on sufficient student enrollment. Exploratory and elective classes vary in their meeting schedules and in the amount of curriculum they cover.

## GROUPING GUIDELINES

Students of varying achievement levels are assigned to teacher advisor, health and physical education, elective, and exploratory courses.

Students of varying achievement levels are assigned to teams for instruction in the core academic subjects.

The core team of teachers has the responsibility of regrouping the team of students into instructional groups / classes to facilitate appropriate programming in the academic subjects.

1. For the academic subjects of mathematics and reading / language arts / English, students within the team are regrouped into achievement groups for instruction at Grades 6, 7, and 8.
2. Other regrouping occurs according to school and team option.

The basis for the regrouping will be clear and articulated to parents of students on the team.

Teachers base their regrouping decisions on skill levels as determined by achievement tests such as the Standards of Learning assessments administered in Grades 3 - 7, subject - specific diagnostic tests, student performance in current and past classes, and teacher knowledge of special characteristics of students.

A student who is not “performing” in the sense of not completing work is still assigned on the basis of the appropriate instructional level for him / her as determined by testing and / or consistent prior performance.

Group assignments are flexible. As middle school students experience sudden intellectual growth, exit language training programs, or demonstrate changed needs in other ways, their grouping will change to reflect their current instructional requirements.

In keeping with the transitional nature of the middle school years, the degree of grouping increases with the number of years in middle school in order to “transition” the students from the elementary school to the high school.

## PREPARATION FOR RIGOROUS COURSES

Arlington Public Schools encourages all students to enroll and succeed in advanced courses. Successful participation in advanced courses instills in students a sense of accomplishment, increased self - esteem, improved study skills, and a greater foundation for success in subsequent advanced courses and for life beyond school. It is not however, enough for students to simply desire to enroll in advanced courses. A solid foundation of knowledge and skills is necessary and serves as a great predictor of success in advanced courses.

Therefore, it is important that students strive to do their very best in all courses in order to build a solid foundation for academic success. This includes developing effective study habits, completing assignments, meeting deadlines, asking for help or putting in extra time when it is needed, and being successful in fundamental courses that serve as the foundation for advanced courses. Doing one's best also includes doing more than the minimal requirements for classes by completing projects or other enriching or skill building activities. Students and parents are encouraged to work closely with teachers and counselors to build, support, and promote these skills in order to maximize opportunities for enrolling in and being successful in advanced courses. All Grade 6 students in consultation with counselors and parents are required to complete a six - year plan and to update and refine that plan as they progress through each middle school grade. By Grade 9, the six - year plan has been replaced with a four - year plan, which is also updated and refined each year as students progress through high school.

Advanced courses may be defined by when a student takes a course as well as by enriched or accelerated content. Such courses might be labeled "advanced" or "intensified". For example, Geometry in Grade 8 would be considered an advanced course whereas Geometry in Grade 10 would not. In middle school, advanced courses are considered those courses that allow selected students to earn high school credits in middle school such as in Foreign Language, Algebra I, or Geometry (Geography, taken for high school credit by all Grade 8 students, is not considered an advanced course). These courses also serve as gateways for courses in high school. The table below presents two examples of how rigorous course selections in middle school might impact students' later high school course options and opportunities.

Course:	Implication:
Algebra I	The sequence of mathematics courses is Algebra I, Geometry, and Algebra II. A student interested in Advanced Placement science courses in high school would take Intensified Chemistry in Grade 10. (Advanced Placement courses allow students to earn college credits while in high school.) Algebra II is a co - requisite for Intensified Chemistry. Also, because Algebra I is a high school course, successful completion of Algebra I by Grade 8 enables a student to earn credits toward graduation early.
Spanish I and II	Taking Spanish I or Spanish I and II in middle school enables a student to take Spanish III, IV, and even V in high school or to take at least two years of another language in high school. Note that a student who did not complete Spanish I in middle school would not have an opportunity to enroll in Spanish V.

Students and parents should work closely with counselors to ensure that the six - year and four - year plans include the prerequisites and subsequent advanced courses. Such participation improves opportunities for college attendance and success.

## **PREREQUISITE EXCEPTIONS**

Course descriptions include recommended prerequisites, including levels of performance or prior academic performance that teachers regard as predictive of success in the course. Sometimes a student and his / her family believe that the student would benefit from a course even though the student's previous academic achievement does not match the level specified for the course. A student may not have earned the expected "C" or "B" in the course preceding the one in the description. In this situation, the student and his / her family may enroll in the more difficult course in spite of a lower grade in the prerequisite course with the understanding that the staff does not recommend that level for the student. The student commits to remaining in the more difficult course throughout the school year and understands that the teacher will not reduce the standards and expectations of the course. The Counseling Departments have waiver forms for parents and students to complete to arrange this exception to the usual prerequisites regarding levels of performance. Parents must submit these waiver requests by the end of the previous school year.

## INSTRUCTIONAL AREAS OF STUDY

The following pages outline major skills and content which students are expected to learn at each of the middle school grade levels while enrolled in specific courses. **This display is not to be considered a complete listing of what students are taught and expected to achieve.** Parents who desire to review the full range of grade level objectives or program descriptions are encouraged to review local and state curriculum guides and text materials available in each school and / or contact the supervisor of the instructional area.

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<b>BUSINESS AND INFORMATION TECHNOLOGY, COMPUTER SCIENCE AND MARKETING</b> , Phyllis Gandy, Supervisor .....	703/228-7213
<b>FAMILY AND CONSUMER SCIENCES</b> , Marilyn Faris Scholl, Supervisor .....	703/228-7214
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<b>HEALTH AND PHYSICAL EDUCATION</b> , Deborah C. DeFranco, Supervisor .....	703/228-6167
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## **GRADE 6 CORE CURRICULUM**

Grade 6 students study the following subjects during the core block of time. Within each subject area students receive remediation and enrichment as appropriate. For the academic subjects of mathematics, English, and reading, students within the team are regrouped into achievement groups for instruction

### **ENGLISH LANGUAGE ARTS**

#### **Grade 6 English**

In all middle schools, the English Language Arts Program focuses on five organizing topics: oral language, vocabulary development, reading literature, writing, and research. Competence in these areas leads to advanced student thinking in all subjects, and success in and out of school.

Students will

- participate in small group activities
- listen critically and express opinions in oral presentations
- read and learn the meanings of unfamiliar words
- read a variety of fiction (realistic, fantasy, and historical) and narrative nonfiction
- learn a variety of reading strategies to understand text
- read and write a variety of poetry
- write narratives, descriptions, and explanations
- use reading and writing as tools for learning in all subjects
- complete research using a variety of sources

#### **Grade 6 Reading**

During Grade 6 Reading, teachers focus on the following elements of reading instruction: the reading process, how to read textbooks, vocabulary instruction, and how to read nonfiction. Students are taught that effective readers apply strategies before, during, and after reading in order to comprehend the meaning of a text. Students use reading as a tool for learning in the content areas. Grade Six Reading facilitates this process by teaching students how to read various types of textbooks. Students in the course are also taught strategies for learning new vocabulary words. Finally, students practice how to read nonfiction selections. Explicit instruction in reading comprehension strategies, guided practice in how to apply the strategies, and independent reading - including novel study and reading for pleasure - are essential elements to the course.

## **GRADE 6 CORE CURRICULUM, continued**

### **HEALTH AND PHYSICAL EDUCATION**

#### **Grade 6 Health and Physical Education**

All Grade 6 students participate in the health and physical education program. The health education instructional program emphasizes the wellness concept as the preferred lifestyle. Areas of study include first aid, tobacco, alcohol and other drug use prevention, disease prevention and control, family life education, mental health, and sports and leisure.

Students will

- Describe the interconnection of body systems
- Summarize reproduction system
- Name the physical changes in puberty
- Explain the process of human reproduction
- Understand dietary guidelines
- Recognize the importance of healthy food choices
- Compare body image and weight management
- Describe the importance of proper hygiene
- Demonstrate competence in combining locomotor and manipulative skills into specialized sequences, and apply sequences to partner and small group game - play
- Demonstrate putting complex movement sequences to a rhythm
- Demonstrate skill in a variety of individual and team activities representative of different countries
- Apply movement principles and concepts to individual and group activity by applying concepts of relationship, effort, spatial awareness, speed, and pathways
- Use feedback, including available technology, to improve skill performance
- Initiate skill practice to improve movement performance, and apply principle of learning to adapt from whole to part to whole
- Understand and apply basic offensive and defensive tactics in noncomplex, modified activities
- Improve personal fitness using measurement and assessment data
- Describe and apply basic principles of training (FITT principle)
- Participate independently and with others in physical activity settings following rules and safety procedures
- Identify and seek opportunities in the school, at home, and in the community for regular participation in physical activity

## GRADE 6 CORE CURRICULUM, continued

### MATHEMATICS

#### Math 6

The sixth grade mathematics curriculum is divided into six strands. These strands are **number relationships; computation and estimation; measurement; geometry and spatial sense; data analysis, statistics, and probability; and algebra, patterns, and functions**. The content taught in each of the strands supports four goals for all students as they reach for excellence: a) reasoning mathematically, b) communicating mathematically, c) becoming mathematical problem - solvers, and d) making mathematical connections.

Students will

- Identify, describe, and write equivalent relationships between fractions, decimals, and percents
- Describe and compare two sets of data, using ratios, and use appropriate notations, such as  $\frac{a}{b}$ , a to b, and a:b
- Identify, represent, order, and compare integers
- Solve problems that involve additions, subtraction, multiplication, and / or division with fractions and mixed numbers
- Divide decimals through thousandths
- Use estimation strategies to solve multi - step practical problems involving whole numbers, decimals, fractions
- Determine if a problem situation involving polygons of four or fewer sides represents the application of perimeter or area and apply the appropriate formula
- Estimate angle measures, using 45 degrees, 90 degrees, and 180 degrees as referents, and use the appropriate tools to measure the given angles
- Determine congruence of segments, angles, and polygons by direct comparison, given their attributes
- Sketch, construct models of, and classify solid figures (rectangle prisms, cones, cylinders, and pyramids)
- Collect, analyze, display and interpret data in a variety of graphical methods
- Describe mean, median, and mode as measures of central tendency, describe the range, and determine their meaning for a set of data
- Investigate, describe, and extend numerical and geometric patterns, including triangular numbers, patters formed by powers of 10, and arithmetic sequences
- Solve one - stem linear equations in one variable, involving whole number coefficients and positive rational solutions
- Investigate and describe concepts of positive exponents, perfect squares, square roots, and, for numbers greater than 10, scientific notation

Students who demonstrate mastery of the grade six curriculum early in the school year are regrouped into Math 6, Intensified sections where they will study grade seven mathematics curriculum.

## GRADE 6 CORE CURRICULUM, continued

### **Math 6, Intensified**

*Prerequisite: Mastery of grade 6 objectives*

Students who have successfully completed the grade 6 mathematics curriculum by the end of grade 5, will study an enriched curriculum in the math 6 intensified course. The curriculum in this intensified course includes all objectives in grade 7 mathematics. High achieving students must have a strong grasp of basic skills and concepts in order to be successful in this course. Students enrolled in Math 6, Intensified will take the Grade 7 SOL assessment.

## **SCIENCE**

### **Grade 6 Science**

During Grade Six Science, concepts are introduced and reinforced with textbooks, trade books, science materials, and numerous hands - on science activities specifically developed to enhance student understanding of underlying scientific principles. The nature of science is developed and reinforced for students through planning and conducting investigations in which: hypotheses are stated with specific criteria; variables are identified; methods are devised to test the validity of predictions and inferences; and data are collected, recorded, organized, analyzed, and reported.

Students will investigate and understand

- The basic sources of energy, their origins, transformations, and uses
- The role of solar energy in driving most natural processes within the atmosphere, the hydrosphere, and on the Earth's surface
- That all matter is made up of atoms
- The unique properties and characteristics of water and its roles in the natural and human - made environment
- The properties of air and the structure and dynamics of the Earth's atmosphere
- The natural processes and human interactions that affect watershed systems
- The organization of the solar system and the relationships among the various bodies that comprise it
- Public policy decisions relating to the environment

## **GRADE 6 CORE CURRICULUM, continued**

### **SOCIAL STUDIES**

#### **U.S. History to 1865**

Students will use skills of historical and geographical analysis to explore the early history of the United States and understand ideas and events that strengthened the union. The content for this course relates to the history of the United States from pre - Columbian times until 1865. Students will continue to learn fundamental concepts in civics, economics, and geography as they study United States history in chronological sequence and learn about change and continuity in our history. They also will study documents and speeches that laid the foundation of American ideals and institutions and will examine the everyday life of people at different times in the country's history through the use of primary and secondary sources.

The Social Studies theme for grade six is SURVIVAL. The content is organized around the key concepts of explorations and colonization; revolution and independence; change and transformation; expansion, growth and mobility, and conflict. The following are major objectives which students are expected to learn:

Students will

- Develop skills for historical and geographical analysis
- Use maps, globes, photographs, pictures, cartoons, and tables
- Examine how early cultures developed in North America
- Describe European exploration in North America and West Africa
- Identify factors that shaped colonial America
- Analyze causes and results of the American Revolution
- Understand the foundations of American constitutional government including the charters of the Virginia Company of London, the Virginia Declaration of Rights, the Declaration of Independence, the Articles of Confederation, the Virginia Statute of Religious Freedom, the Constitution of the United States, and the Bill of Rights
- Examine westward expansion and reform in America from 1801 to 1861
- Understand the causes, major events, and effects of the Civil War

## **GRADE 6 EXPLORATORY PROGRAM**

The Exploratory Wheel is designed to provide Grade 6 students the opportunity to sample a variety of the electives offered at the middle school level. Students in the Exploratory Wheel will rotate through classes which reflect the fine arts, the practical arts and / or linguistics. The students travel as a group and rotate through the various electives offered.

Grade 6 students who elect instrumental music and those students who are required to take Instructional Skills or opt to take another skill building course will participate in those classes on a daily basis instead of the Exploratory Wheel.

### **ARTS EDUCATION**

Visual Art, Music, and Theatre Arts classes all use an experiential approach to the creative process. Students in arts classes develop and refine the attitude, discipline, and necessary skills to produce visual art works and musical theatrical performances.

#### **Exploring Chorus 6**

Students will

- Demonstrate proper posture, breath control, and mouth shape for good tone
- Understand the basics of reading music and their corresponding musical interpretation for accurate performance of pitch, rhythm, time signature, key signature, tempo and expressive markings
- Develop the ability to match pitch accurately using a diatonic pitch system and maintain a part within the ensemble
- Create simple rhythmic or melodic improvisations, 1 to 2 measures in length
- Respond to conducting gestures
- Demonstrate learning through appropriate performances and presentations

#### **Exploring Theatre Arts**

Students will

- Demonstrate effective communication techniques in formal and informal settings
- Develop and critique scripted scenes
- Discover and explore themes in drama / theatre
- Use improvisation to create a character, explore ideas, and develop a progressive chain of events
- Understand and respond to elements of technical theatre as they affect the audience
- Improve understanding of self and others through role - playing

#### **Exploring Visual Arts**

Students will

- Adapt the ideas and themes of other cultural art forms from various cultures to original art work
- Use personal concerns and feelings about past and present cultures as sources for subjects and themes
- Understand selected major art works and their historical significance
- Understand the evaluation of art styles and forms through elaboration and refinement of the creative problem solving process
- Describe and analyze formal differences among art works of various cultures
- Understand how definitions of beauty have varied among cultures studied

## **GRADE 6 EXPLORATORY PROGRAM, continued**

### **BUSINESS AND INFORMATION TECHNOLOGY**

#### **Exploring Computer Keyboarding Applications**

Students are introduced to beginning keyboarding on microcomputers. Students learn proper keyboarding techniques including the touch typing method, speed, accuracy, good organizational skills, composition, language arts, and proper care of equipment.

Students will

- Learn components of the computer and proper care of the equipment
- Learn the purpose of the function keys and procedures for implementing software
- Learn touch typing techniques and improve keyboarding speed and accuracy
- Practice composing at the keyboard: create a variety of documents to enhance academic skills

### **ENGLISH**

#### **Exploring Journalism**

This exploratory course requires students to produce a newspaper or news broadcast. Through their work, students learn about newspaper and broadcast writing and production.

Students will

- Learn and use journalistic style
- Analyze print and / or television broadcasts for content and technical quality
- Write news articles including editorials, features, and sports and / or develop broadcast shorts including commercials, public service announcements, or news shows
- Learn the various jobs of journalistic work: proofreading, editing, laying out pictures and copy, writing headlines, script preparation and final production

### **FAMILY AND CONSUMER SCIENCES**

#### **Exploring Family and Consumer Sciences**

This exploratory course assists students in learning responsibility, problem - solving techniques, and independence. Students will practice working cooperatively through laboratory experiences.

Students will

- Prepare and serve simple, nutritious snacks
- Learn how to keep food and the work environment clean and safe
- Practice basic hand sewing techniques
- Understand friendships and work cooperatively with others
- Gain confidence in self - protection when alone at home

## **GRADE 6 EXPLORATORY PROGRAM, continued**

### **FOREIGN LANGUAGE**

The foreign language exploratory courses are offered at the sixth grade level and are an introduction to the language and culture. Exploratories are not required in order to take Level I of a language in Grade 7. However, they are recommended.

#### **Exploring French and / or Spanish**

Students will

- Understand, ask, and answer questions concerning self
- Participate in basic social interactions
- Understand limited, controlled speech relating to greetings, colors, numbers, and food

#### **Exploring Latin**

Students are introduced to the language and life of the Romans. Basic concepts about language are presented as students learn a beginning Latin vocabulary. A strong emphasis is placed on word formation from Latin.

### **TECHNOLOGY EDUCATION**

#### **Exploring Technology**

Students first study the basic elements of all technology, including processes, energy, information, and people. They explore up to four systems of technology, including biotechnology, energy, construction, transportation, communication, and production / manufacturing. Finally, they relate the impact of technology on society, environment, and culture to future consequences and decisions.

Students will

- Be able to explain and use the problem - solving process
- Select and use drafting and measuring tools
- Identify and use tools, machines, and equipment located in the Technology Education laboratory
- Demonstrate good safety practices while using the power and hand tools in the laboratory
- Understand the purpose of each of the tools and machines located in the lab
- Analyze a simple plan and understand how to read and transfer this information to a finished project
- Solve a problem by applying tools, materials, mathematics, and science
- Prepare modules or projects for display or competitive events related to transportation, production, and communication
- Be introduced to the modular lab

## GRADE 6 SEMESTER OR YEAR - LONG NON - CORE CLASSES

### ARTS EDUCATION

#### Instrumental Music

The objectives for each class would include, but are not limited to those that are listed. Specific names may be given to these ensembles at each school.

In *Beginning Band* students will:

- Demonstrate proper care and holding position for a musical instrument
- Demonstrate correct playing technique to produce a characteristic sound
- Understand the basics of reading music and corresponding musical interpretation for accurate performance of pitch, rhythm, time signature, key signature, tempo, and expressive markings
- Develop the skill to play a range of one octave or beginning rudiments (percussion) and use these skills as a member of the ensemble
- Develop the ability to tune the instrument using a tuner
- Create simple rhythmic or melodic improvisations, 1 to 2 measures in length
- Play ensemble music with a steady beat using a metronome and in response to conducting gestures
- Demonstrate learning through appropriate performances and presentations

In *Intermediate Band* students will:

- Enter with the skill set established in Beginning Band (Elementary School or Grade 6 Beginning Band)
- Understand and respond to music notation, including articulations, compound meters, even subdivisions and key signatures with several accidentals
- Develop the skill to play a range of one and half octaves and basic rudiments (percussion), demonstrating these skills as a member of the ensemble
- Develop the ability to tune the instrument by ear
- Create rhythmic or melodic improvisations, 2 - 4 measures in length
- Respond to conducting gestures involving changes of tempo, articulation, and style
- Demonstrate learning through performances and presentations of Grade I literature, including solo performance as appropriate
- Sight Read two grade levels below concert literature

In *Beginning Orchestra* students will:

- Demonstrate proper care and holding position for a musical instrument and bow
- Demonstrate correct playing technique to produce a characteristic sound, including pizzicato and basic bowing techniques
- Understand the basics of reading music and their corresponding musical interpretation for accurate performance of pitch, rhythm, time signature, key signature, tempo, and expressive markings
- Develop the skill to play a range of one octave (first position) and double stops on open strings and use these skills as a member of the ensemble
- Develop the ability to tune the instrument using a tuner
- Create simple rhythmic or melodic improvisations, 1 to 2 measures in length
- Play with a steady beat using a metronome and in response to conducting gestures
- Demonstrate learning through appropriate performances and presentations

## **GRADE 6 SEMESTER OR YEAR - LONG NON - CORE CLASSES, continued**

In *Intermediate Orchestra* students will:

- Enter with the skill set established in Beginning Orchestra (Elementary School or Grade 6 Beginning Orchestra)
- Understand and respond to music notation, including articulations of various bowings, compound meters, even subdivisions and key signatures with two sharps
- Develop the skill to play a range of one and half octaves, using extensions and regulating bow weight, speed and contact; demonstrate these skills as a member of the ensemble
- Develop the ability to tune the instrument by ear
- Create rhythmic or melodic improvisations, 2 - 4 measures in length
- Respond to conducting gestures involving changes of tempo, articulation, and style
- Demonstrate learning through performances and presentations , including solo performance as appropriate
- Sight Read two grade levels below concert literature

### **FOREIGN LANGUAGE**

#### **Transitional Spanish**

*To be offered as a semester elective paired with a semester of Reading 6*

*Prerequisite: Prior study in APS FLES (Foreign Language Elementary School) Spanish language program or teacher recommendation based on proficiency testing.*

This course is designed as the 6<sup>th</sup> grade sequence to the Foreign Language Elementary School (FLES) Spanish language program. *This course may not be offered in all locations.*

This transitional program builds on previously developed language skills in understanding, speaking, reading and writing. The focus is on real - life functional use of language through hands - on activities, skits, songs, paired oral activities and games. Grammar and vocabulary are introduced and reinforced in meaningful ways to support the acquisition of language. The cultural practices and perspectives of a diverse Hispanic world are an integral part of the curriculum.

In this course students will:

- Take part in basic conversation on topics to include friends, family and school
- Read menus, signs, and short examples of authentic material
- Write short descriptions, messages and guided compositions
- Learn about aspects of everyday life in diverse Hispanic cultures

## **GRADE 6 SEMESTER OR YEAR - LONG NON - CORE CLASSES, continued**

### **MATHEMATICS**

#### **Algebra Prep Grade 6**

*To be offered as a semester or a year long elective.*

This grade 6 elective is highly recommended for students who need additional support and strategies to prepare for the grade 6 SOL in math and future participation in algebra. *Enrollment in this course is based on test scores, grades, teacher and / o r counselor recommendation.*

#### **High Intensify Language Training (HILT) Mathematics Block**

This elective block course is intended for HILT middle school students who are at least two years below grade level and who need more instructional time in mathematics before moving into grade level mathematics classes. This transition course will provide HILT students with an opportunity to build conceptual understanding, focusing on fundamental standards of learning objectives. Students will also receive explicit instruction in the language of mathematics and mathematical reasoning.

### **SPECIAL EDUCATION**

#### **Instructional Study Skills**

Prerequisite: Student must be identified as in need of Special Education services

Course work is individualized based on the student's IEP and reinforces the needs of each student's general education courses. In addition, listening skills, writing skills, organizational and general study skills are emphasized.

## **GRADE 7 CORE CURRICULUM**

Grade 7 students study the following subjects during the core block of time. Within each subject area students receive remediation and enrichment as appropriate. For the academic subjects of mathematics and English, students within the team are regrouped into achievement groups for instruction. (See page 4 for grouping information.)

### **ENGLISH LANGUAGE ARTS**

#### **Grade 7 English**

In all middle schools, the English Language Arts Program focuses on five organizing topics: oral language, vocabulary development, reading literature, writing, and research. Competence in these areas leads to advanced student thinking in all subjects, and success in and out of school.

Students will

- give and seek information in conversations and in group discussions
- identify the relationship between a speaker's verbal and nonverbal messages
- identify persuasive messages in print and nonprint media
- use analogies, idioms, similes, and metaphors to extend understanding of word meanings
- read a variety of fiction , nonfiction, and poetry
- continue to learn and apply a variety of reading strategies to understand text
- develop narrative, expository, persuasive, and technical writings
- use technology to publish original work
- complete research to prepare written and oral presentations

## **GRADE 7 CORE CURRICULUM, continued**

### **HEALTH AND PHYSICAL EDUCATION**

#### **Grade 7 Health and Physical Education**

All Grade 7 students participate in the health and physical education program. Instruction emphasizes the wellness concept and includes study in family life education, alcohol, tobacco and other drug use prevention, prevention and control of disease, mental health, nutrition, personal health, and wellness. Specific objectives of the program include the following.

Students will

- Review physical and emotional changes during adolescence
- Connect diet to exercise and performance habits
- Recognize the importance of regular physical activity
- Identify adverse consequences of teen pregnancy
- Demonstrate competence in modified versions of various game / sport, rhythmic, and recreational activities
- Display appropriate use of speed, force, and form in a variety of movement activities
- Demonstrate basic abilities and safety precautions in recreational pursuits
- Demonstrate moving to a rhythm in selected folk, country, square, contemporary and line dances
- Demonstrate proper use of movement concepts in dynamic game situations
- Apply biomechanical principles to understand and perform skillful movements
- Use basic offensive and defensive tactics and strategies while playing a modified version of a game / sport
- Analyze skill patterns of self and partner, detecting and correcting mechanical errors
- Identify safe practices for improving physical fitness
- Develop a comprehensive personal fitness plan, including goals, strategies and timeline for improving fitness
- Use a variety of resources to monitor fitness improvement
- Analyze the relationship between physical activity and body composition
- Apply safety procedures, rules and appropriate etiquette in physical activity settings
- Demonstrate supportive behaviors that promote the inclusion and safety of other when participating in physical activity
- Select and set goals, and participate in and outside of school in activities that help improve fitness
- Analyze the relationship between physical activity and stress management

## GRADE 7 CORE CURRICULUM, continued

### MATHEMATICS

#### Math 7

The grade seven mathematics curriculum is divided into six strands. These strands are **number relationships; computation and estimation; measurement; geometry and spatial sense; data analysis, statistics, and probability; and algebra, patterns, and functions**. The content taught in each of the strands supports four goals for all students as they reach for excellence: a) reasoning mathematically, b) communicating mathematically, c) becoming mathematical problem solvers, and d) making mathematical connections.

Students will

- Compare, order and determine equivalent relationships between fractions, decimals, and percents, including scientific notation
- Simplify expressions that contain rational numbers (whole numbers, fractions, and decimals) and positive exponents, using order of operations, mental mathematics, and appropriate tools
- Use proportions to solve practical problems, including scale drawings, that contain rational numbers (whole numbers, fractions and decimals) and percents
- Solve practical problems using rational numbers and percents
- Investigate and solve problems involving the volume and surface area of rectangular prisms and cylinders, using concrete materials and practical situations to develop formulas
- Use deductive reasoning and inference to classify quadrilaterals
- Determine if geometric figures are similar and write proportions to express the relationships between corresponding parts of similar figures
- Identify and describe the number of possible arrangements of several objects, using a tree diagram or the Fundamental (Basic) Counting Principle
- Create and solve problems involving the measures of central tendency (mean, mode, and median) and range of a set of data
- Make inferences, conjectures, and predictions based on the analysis of a set of data
- Represent, analyze, and generalize a variety of patterns, including arithmetic sequences and geometric sequences, with tables, graph, rules, and words in order to investigate and describe functional relationships
- Solve one - step linear equations and inequalities in one variable with strategies involving inverse operations and integers, using concrete materials, pictorial representations, and paper and pencil

#### Math 7, Intensified

Students who have successfully completed the grade seven mathematics curriculum in grade six will study an enriched curriculum in the Math 7, Intensified course. The curriculum in this intensified course includes all the objectives for grade eight mathematics. High achieving students must have a strong grasp of basic skills and concepts of mathematics in order to be successful in this course. Students enrolled in Math 7, Intensified will take the Grade 8 SOL assessment.

#### Algebra I, Intensified

This course includes properties of the real number system, operations with exponents and polynomials, linear equations and inequalities, problem solving, factoring, rational expressions and equations, radicals, quadratic equations, graphing in the coordinate plane, exponential functions, inequalities in two variables, quadratic functions, and rational functions. *There is an Algebra end - of - course SOL test. Passing the SOL test and the course earns a verified credit toward graduation.*

***Note: This course carries high school credit and will apply to high school graduation requirements. Please see pages 58 and 59 for more information.***

## GRADE 7 CORE CURRICULUM, continued

### SCIENCE

#### Grade 7 Life Science

During Grade Seven Life Science, students continue to expand their range of inquiry skills and achieve proficiency with those skills for understanding scientific principles. The nature of science is developed and reinforced for students through planning and conducting investigations in which: variables and constants are identified; variables are controlled to test hypotheses; trials are repeated; sources of experimental error are identified; data are organized into tables showing repeated trials and means; continuous line graphs are constructed, interpreted, and used to make predictions; and interpretations from the same set of data are evaluated and defended.

Students will investigate and understand

- That all living things are composed of cells
- That living things show patterns of cellular organization
- That the basic needs of organisms must be met in order to carry out life processes
- How organisms can be classified
- The basic physical and chemical processes of photosynthesis and its importance to plant and animal life
- That organisms within an ecosystem are dependent on one another and on nonliving components of the environment
- That interactions exist among members of a population
- Interactions among populations in a biological community
- How organisms adapt to biotic and abiotic factors in an ecosystem
- That ecosystems, communities, populations, and organisms are dynamic and change over time (daily, seasonal, and long term)
- The relationships between ecosystem dynamics and human activity
- That organisms reproduce and transmit genetic information to new generations
- That organisms change over time

## GRADE 7 CORE CURRICULUM, continued

### SOCIAL STUDIES

#### U.S. History 1865 to the Present

Students will continue to use skills of historical and geographical analysis as they examine American history since 1865. The standards for this course relate to the history of the United States from the Reconstruction era to the present. Students should continue to learn fundamental concepts in civics, economics, and geography within the context of the United States history. Political, economic, and social challenges facing the nation reunited after civil war will be examined chronologically as students develop an understanding of how the American experience shaped the world political and economic landscape.

The theme for grade seven is ADAPTATION. The objectives focus on the development of the United States from 1865 to the present. Content is organized around the key concepts of: conflict, struggle for rights, movements, growth and development of technology, and global interaction.

Students will

- Use maps, globes, photographs, pictures, cartoons, and tables
- Demonstrate skills for historical, civic, and geographic analysis
- Describe how life changed after the Civil War as a result of Reconstruction
- Explain the changing role of the United States from the late nineteenth century through World War I
- Examine the social, economic, and technological changes of the twentieth century
- Identify the major causes and effects of American involvement in World War II
- Describe the economic, social, and political transformation of the United States and the world between the end of World War II and the present
- Examine the key domestic issues during the second half of the twentieth century, including the Civil Rights Movement
- Understand the foundations of American constitutional government, including the significance of the Declaration of Independence, the Constitution of the United States and the Bill of Rights
- Explain the fundamental principles of consent of the governed, limited government, rule of law, democracy, representative government, the relationship of state and national governments, the separation of powers, the system of checks and balances, and the process of amending the Constitution
- Identify the rights, responsibilities, and duties of citizenship
- Describe the political and public policy processes at the local, state, and national levels of government
- Explain the judicial systems established by the Constitution of Virginia and the Constitution of the United States
- Describe how economic decisions are made in the market place
- Understand the structure and operation of the United States economy, including the role of government

## GRADE 7 ELECTIVE AND NON - CORE COURSES

Grade 7 students have a variety of elective courses available to them. The possible combinations of courses vary with the individual school's schedule.

### ARTS EDUCATION

#### Instrumental Music

The objectives for each class would include, but are not limited to those that are listed. Specific names may be given to these ensembles at each school.

In *Beginning Band* students will:

- Demonstrate proper care and holding position for a musical instrument
- Demonstrate correct playing technique to produce a characteristic sound
- Understand the basics of reading music and corresponding musical interpretation for accurate performance of pitch, rhythm, time signature, key signature, tempo, and expressive markings
- Develop the skill to play a range of one octave or beginning rudiments (percussion) and use these skills as a member of the ensemble
- Develop the ability to tune the instrument using a tuner
- Create simple rhythmic or melodic improvisations, 1 to 2 measures in length
- Play ensemble music with a steady beat using a metronome and in response to conducting gestures
- Demonstrate learning through appropriate performances and presentations

In *Advanced Band* students will:

- Enter with the skill set established in Intermediate Band
- Understand and respond to music notation, including other subdivisions (triplets, duplets, syncopation), expression marks in other languages
- Develop the skill to play a range of one and half octaves or the complete set of rudiments (percussion), demonstrating these skills with sensitivity to blend and balance, as a member of the ensemble
- Identify key signatures and play the corresponding scale in key signatures up to 4 sharps or flats
- Create rhythmic or melodic improvisations, 2 - 4 measures in length
- Demonstrate learning through performances and presentations of Grade I and II literature, including solo performance as appropriate
- Sight Read two grade levels below concert literature

## GRADE 7 ELECTIVE AND NON - CORE COURSES, continued

In *Beginning Orchestra* students will:

- Demonstrate proper care and holding position for a musical instrument and bow
- Demonstrate correct playing technique to produce a characteristic sound, including pizzicato and basic bowing techniques
- Understand the basics of reading music and corresponding musical interpretation for accurate performance of pitch, rhythm, time signature, key signature, tempo, and expressive markings
- Develop the skill to play a range of one octave (first position) and double stops on open strings and use these skills as a member of the ensemble
- Develop the ability to tune the instrument using a tuner
- Create simple rhythmic or melodic improvisations, 1 to 2 measures in length
- Play with a steady beat using a metronome and in response to conducting gestures
- Demonstrate learning through appropriate performances and presentations

In *Advanced Orchestra* students will:

- Enter with the skill set established in Intermediate Orchestra
- Understand and respond to music notation, including other subdivisions (triplets, duplets, syncopation), slurs of multiple notes, expression marks in other languages
- Develop the skill to play a range of one and half octaves, utilizing extensions, and demonstrate these skills with sensitivity to blend and balance, as a member of the ensemble
- Identify key signatures and play the corresponding scale in key signatures up to 2 sharps and 1 flat
- Create rhythmic or melodic improvisations, 2 - 4 measures in length
- Demonstrate learning through performances and presentations, including solo performance as appropriate
- Sight Read two grade levels below concert literature

### **Theatre Arts**

Students will

- Experience standard theatre processes of audition, rehearsal practices, and technical production
- Analyze and evaluate dramatic texts as a basis for performance
- Incorporate physical, emotional, and social dimensions of characters
- Understand and practice the role and responsibilities of directors and actors
- Recognize and understand functions of management in theatre productions
- Develop and apply artistic discipline in collaboration with others

### **Visual Arts**

Students will

- Create and manipulate contrasting textures in two and three dimensional shapes
- Render natural forms in proportion
- Use drawing as a tool to analyze and solve problems
- Understand how art styles of historical periods reflect different modes of perception
- Learn how drawing skills are used by the commercial sector in contemporary society
- Express personal interpretations and judgment of drawings
- Analyze and critique drawings using art terminology

## GRADE 7 ELECTIVE AND NON - CORE COURSES, continued

### Vocal Music

The objectives for each class would include, but are not limited to those that are listed. Specific names may be given to these ensembles at each school.

In *Beginning Chorus* students will

- Demonstrate proper posture, breath control, and mouth shape for good tone
- Understand the basics of reading music and corresponding musical interpretation for accurate performance of pitch, rhythm, time signature, key signature, tempo and expressive markings
- Develop the ability to match pitch accurately using a diatonic pitch system and maintain a part within the ensemble
- Create simple rhythmic or melodic improvisations, 1 to 2 measures in length
- Respond to conducting gestures
- Demonstrate learning through appropriate performances and presentations

In *Advanced Chorus* students will

- Understand and respond to music notation, in both treble and bass clef
- Develop the skill to sing an extended range, and with greater part independence, demonstrating these skills as a member of the ensemble
- Develop the ability to make refined pitch matching adjustments in a cappella singing of three and four part literature
- Create simple rhythmic or melodic improvisations, 4 - 8 measures in length
- Respond to conducting gestures involving changes of tempo, articulation and style
- Demonstrate learning through appropriate performances and presentations of Grade I literature, including solo performance as appropriate
- Sight Read two grade levels below concert literature

## BUSINESS & INFORMATION TECHNOLOGY

### Digital Input Technologies

Students will

- Learn touch typing techniques and improve keyboarding speed and accuracy
- Learn and practice all capabilities and features of word processing software, including desktop publishing capabilities
- Improve skills in composing and editing, and use word processing to create documents for academic classes
- Practice formatting a variety of documents including business and personal letters, envelopes, charts, reports, term papers, and memos
- Research a variety of careers and become aware of personal employability skills including resume preparation and interviewing skills
- Explore business ownership and business functions in the American economic system
- Complete projects on maintaining a personal budget, balancing a checking account, interpreting a paycheck, purchasing insurance and autos, choosing affordable housing, investing, and other consumer - related skills
- Discuss workplace applications for new and emerging technologies (on - screen writing, speech recognition, and PDAs)

## GRADE 7 ELECTIVE AND NON - CORE COURSES, continued

### ENGLISH

#### Grade 7 Reading Strategies

Teacher and / or counselor recommendation

The Grade 7 reading course is highly recommended for students who need additional support with learning comprehension skills and strategies to prepare for the Grade 7 SOL in reading. The course will focus on the improvement of nonfiction reading and will use materials that will help students with reading across the content areas. High interest nonfiction selections will be used from the *Passport Journeys I* program to teach the requisite literacy skills that students need in order to comprehend a variety of texts. Explicit instruction in reading comprehension, guided practice, and independent reading are essential elements to the course. In addition to the reading curriculum, periodic reading assessments are given to document progress toward reading achievement goals.

#### Journalism

This elective course requires students to produce a newspaper or news broadcast. Through their work, students learn about newspaper and broadcasting writing and production.

Students will

- Learn and use journalistic style
- Analyze print and / or television broadcasts for content and technical quality
- Write news articles including editorials, features, and sports and / or develop broadcast shorts including commercials, public service announcements, or news shows
- Learn the various jobs of journalistic work: proofreading, editing, laying out pictures and copy, writing headlines, script preparation and final production

### FAMILY AND CONSUMER SCIENCES

#### Teen Living

This course helps students develop and analyze their personal image, positive attitudes, and roles in society. Through activities in conflict resolution and stress management, students will explore becoming independent.

Students will

- Understand proper nutrition
- Maintain a clean work environment
- Practice responsible citizenship in the home, at school, and in the community
- Follow directions and practice basic hand and machine sewing
- Produce a successful food product by understanding and properly using a recipe

## GRADE 7 ELECTIVE AND NON - CORE COURSES, continued

### FOREIGN LANGUAGES

*Note: The following foreign language courses carry high school credit and will apply to high school graduation requirements. Please see pages 58 and 59 for more information.*

*Successful completion of each of the following foreign language courses results in one credit toward the Advanced Studies Diploma. Depending on enrollment, these courses may be offered through distance learning.*

#### **Arabic I**

This course builds understanding, speaking, reading and writing skills and emphasizes basic Arabic sentence structure. Students develop beginning communication skills and learn about the diversity of the Arab world. Students learn sounds, stress patterns and intonation of the language. Basic structures and vocabulary are learned through practice in listening, speaking, reading and writing with emphasis on oral communication. Upon successful completion of the course, students will be able to understand and speak simple Arabic within the limited context presented to beginners. Reading selections will treat a recombination of previously learned words and sentences. Students will be able to write what has been previously learned through oral and reading activities. The principal topics include community, home and family life, the physical environment, health, education, work and leisure, food, shopping and current events.

#### **Chinese I**

This course builds understanding, speaking, reading and writing skills and emphasizes basic Mandarin Chinese sentence structures. Students use the language within a limited context of vocabulary and structure with the ability to write short passages. Students learn the difference between formal and informal speech patterns and the subtleties of tone and context. Approximately 200 Chinese characters are learned. A general introduction to Chinese culture is also included. The principal topics include community, home and family life, the physical environment, health, education, work and leisure, food, shopping and current events.

#### **French I**

The focus for language learning is on real life, functional use of language through dialogues, skits, and other creative, hands - on activities. Students develop skills and learn basic structures and vocabulary of the language through listening, speaking, reading, and writing activities.

Students will

- Use greetings, farewells, and expressions of courtesy
- Take part in basic conversation about friends, family, and school
- Ask and answer questions based on familiar material
- Read menus, signs, schedules, and other authentic material
- Write short descriptions, messages, and guided compositions
- Study aspects of everyday life in the culture of the target language

## GRADE 7 ELECTIVE AND NON - CORE COURSES, continued

### Latin I

In this first Latin course, students are introduced to the language and life of ancient Rome. The primary goal of Latin I is the development of reading skills supported by the skills of listening, speaking, and writing.

Students will

- Read adapted Latin narratives and simple original Latin
- Understand the essential elements of Latin pronunciation
- Learn a basic Latin vocabulary
- Learn the endings of Latin nouns and verbs and their functions
- Acquire a basic understanding of elementary Latin grammar
- Increase the knowledge of word building in Latin and English through the study of Latin roots, prefixes, and suffixes
- Learn about the daily life, customs, government, and mythology of the Romans

### Spanish I

The focus for language learning is on real life, functional use of language through dialogues, skits, and other creative, hands - on activities. Students develop skills and learn basic structures and vocabulary of the language through listening, speaking, reading, and writing activities.

Students will

- Use greetings, farewells, and expressions of courtesy
- Take part in basic conversation about friends, family, and school
- Ask and answer questions based on familiar material
- Read menus, signs, schedules, and other authentic material
- Write short descriptions, messages, and guided compositions
- Study aspects of everyday life in the culture of the target language

### Spanish for Fluent Speakers I

*Prerequisite: Demonstrate oral fluency in Spanish as determined by the teacher.*

This course is designed for students who have oral fluency in Spanish but have not mastered basic reading and writing skills. Students develop communication skills in reading, writing, and speaking and begin the study of Spanish grammar. Students develop a deeper understanding of perspectives and practices of Hispanic culture.

Students will

- Participate in informal conversations and discussions
- Make oral presentations to small groups and to the class
- Identify main ideas and secondary ideas in authentic texts
- Make simple inferences and draw conclusions from readings
- Write informal notes and letters to friends and relatives
- Write short summaries
- Begin to develop an understanding of the influence of the Hispanic culture on the American heritage

## **GRADE 7 ELECTIVE AND NON - CORE COURSES, continued**

### **MATHEMATICS**

#### **Algebra Prep Grade 7**

Offered as a semester or a year long elective

This grade 7 elective is highly recommended for students who need additional support and strategies to prepare for the grade 7 SOL in math and future participation in algebra. Enrollment in this course is based on test scores, grades, teacher and / or counselor recommendation.

#### **High Intensify Language Training (HILT) Mathematics Block**

This elective block course is intended for HILT middle school students who are at least two years below grade level and who need more instructional time in mathematics before moving into grade level mathematics classes. This transition course will provide HILT students with an opportunity to build conceptual understanding, focusing on fundamental standards of learning objectives. Students will also receive explicit instruction in the language of mathematics and mathematical reasoning.

### **SPECIAL EDUCATION**

#### **Instructional Study Skills**

Prerequisite: Student must be identified as in need of Special Education services

Course work is individualized based on the student's IEP and reinforces the needs of each student's general education courses. In addition, listening skills, writing skills, organizational and general study skills are emphasized.

### **TECHNOLOGY EDUCATION**

#### **Inventions and Innovations**

Students make models of significant inventions that have advanced society. After studying these developments they explore contemporary technological problems facing them, their community, or the world, and apply systematic procedures to invent new products or innovations as solutions.

Students will

- Review and be able to explain and use the problem - solving process
- Study the importance of history in the development of technology
- Demonstrate project planning procedures
- Identify and use tools, machines, and equipment located in the laboratory
- Demonstrate good safety practices while using the power and hand tools in the laboratory
- Assess alternative solutions to select the best ideas
- Construct and illustrate an invention idea to show how it works
- Cycle through two rotations in the modular lab
- Experience Computer Aided Design using AutoCAD Software

## **GRADE 8 CORE CURRICULUM**

All eighth grade students study the following subjects during the core block of time. For the academic subjects of mathematics and English, students within the team are regrouped into achievement groups for instruction.

### **ENGLISH LANGUAGE ARTS**

#### **Grade 8 English**

In all middle schools, the English Language Arts Program focuses on five organizing topics: oral language, vocabulary development, reading literature, writing, and research. Competence in these areas leads to advanced student thinking in all subjects, and success in and out of school.

Students will

- use interviewing techniques to gain information
- apply knowledge of word origins, derivations, and idioms, and will use analogies, similes, and metaphors to extend vocabulary development
- apply knowledge of the characteristics of various literary forms
- select and apply appropriate reading strategies to understand text
- become skillful interpreters of the persuasive strategies used in mass media
- continue to develop narrative, expository, persuasive, and technical writings

### **HEALTH AND PHYSICAL EDUCATION**

#### **Grade 8 Health and Physical Education**

All eighth grade students participate in the health and physical education program. Instruction emphasizes the wellness concept as a preferred life style. Areas of study include family life education, alcohol, tobacco, and other drug use prevention, mental health, personal health, growth and wellness, and safety.

Students will

- Review the physical stages of human development
- Identify eating disorders
- Describe fitness vs. a sedentary lifestyle
- Develop fitness goals
- Describe sexual abstinence
- Describe contraceptive use for family planning
- Demonstrate competence in modified versions of various game / sport. Rhythmic and recreational activities
- Use skill combinations competently in specialized versions of individual, dual, and team activities
- Demonstrate skill in recreational activities
- Demonstrate moving to a rhythm
- Apply movement principles and concepts to specific sport, dance and recreational performance
- Self assess his / her level of physical activity and personal fitness
- Investigate and self assess the relationship among body composition, nutrition, family history and levels of physical activity and develop a plan for improvement or maintenance
- Exhibit fair play and act responsibly in physical activity settings
- Participate regularly in health - enhancing and personally rewarding physical activity during unscheduled times
- Analyze and evaluate personal behaviors that support or do not support a healthy lifestyle

## GRADE 8 CORE CURRICULUM, continued

### MATHEMATICS

#### Math 8

The Grade 8 mathematics curriculum is divided into six strands. These strands are: **number relationships; computation and estimation; measurement; geometry and spatial sense; data analysis, statistics, and probability; and algebra, patterns, and functions.**

The content taught in each of the strands supports four goals for all students as they reach for excellence: a) becoming mathematical problem - solvers, b) communicating mathematically, c) reasoning mathematically, and d) making mathematical connections.

Students will

- Simplify numerical expressions involving positive exponents, using rational numbers, order of operations, and properties of operations with real numbers
- Describe the relationship between the subsets of the real number system
- Solve practical problems involving rational numbers, percents, ratios, and proportions
- Apply the order of operations to evaluate algebraic expressions for given replacement values of the variables
- Verify by measuring and describe the relationships among vertical angles. Supplementary angles, and complementary angles will measure and draw angles less than 360 degrees
- Investigate and solve practical problems involving volume and surface area of rectangular solids (prisms), cylinders, cones and pyramids
- Apply transformations (rotate or turn, reflect or flip, translate or slide, and dilate or scale) to geometric figures represented on graph paper
- Verify the Pythagorean Theorem, using diagrams, concrete materials, and measurement
- Analyze problem situations, including games of chance, board games, or grading scales, and make predictions, using knowledge of probability
- Make comparisons, predictions, and inferences, using information displayed in frequency distributions; box - and - whisker - plots; scatter grams; line, bar, circle, and picture graphs; and histograms
- Use a matrix to organize and describe data
- Describe and represent relations and functions, using tables, graphs, and rules; and relate and compare tables, graphs and rules as different forms of representation for relationships
- Solve two step equations and inequalities in one variable, using concrete materials, pictorial representations, and paper and pencil
- Graph a linear equation in two variables on the coordinate plane, using a table of ordered pairs
- Create and solve problems using proportions, formulas, and functions

## GRADE 8 CORE CURRICULUM, continued

### Algebra I

The content objectives for students studying a first year algebra course are consistent with the 2001 Mathematics Standards of Learning for Virginia public schools.

Objectives are included in five additional topics for those students enrolled in the intensified first year algebra course. These topics are 1) exponential functions, 2) inequalities in two variables, 3) quadratic functions, 4) radicals, and 5) rational functions. *There is an Algebra end - of - course SOL test. Passing the SOL test and the course earns a verified credit toward graduation.*

***Note: This course carries high school credit and will apply to high school graduation requirements. Please see pages 58 and 59 for more information.***

### Algebra I, Intensified

This course includes properties of the real number system, operations with exponents and polynomials, linear equations and inequalities, problem solving, factoring, rational expressions and equations, radicals, quadratic equations, graphing in the coordinate plane, exponential functions, inequalities in two variables, quadratic functions, and rational functions. *There is an Algebra end - of - course SOL test. Passing the SOL test and the course earns a verified credit toward graduation.*

***Note: This course carries high school credit and will apply to high school graduation requirements. Please see pages 58 and 59 for more information.***

### Geometry, Intensified

Intensified Geometry is a rigorous study of logical reasoning through the use of plane and solid figures and the concepts of Algebra I. The student is expected to demonstrate deductive thinking within a postulational system by constructing original direct, indirect, and coordinate proofs. This course is designed for students who intend to matriculate in the Advanced Placement Program. *There is a Geometry end - of - course SOL test. Passing the SOL test and the course earns a verified credit toward graduation.*

***Note: This course carries high school credit and will apply to high school graduation requirements. Please see pages 58 and 59 for more information.***

## **GRADE 8 CORE CURRICULUM, continued**

### **SCIENCE**

#### **Grade 8 Physical Science**

During Grade 8 Physical Science, students continue to expand their range of inquiry skills and achieve proficiency with those skills for understanding scientific principles. The nature of science is developed and reinforced for students through planning and conducting investigations in which: research methods are used to investigate practical problems and questions; chemicals and equipment are used safely; independent and dependent variables, constants, controls, and repeated trials are identified; data tables for descriptive statistics showing specific measures of central tendency, the range of the data set, and the number of repeated trials are constructed and interpreted; and frequency distributions, scatter grams, line plots, and histograms are constructed and interpreted. Valid conclusions are made after analyzing data; experimental results are presented in appropriate written form.

Students will investigate and understand

- The basic nature of matter
- The modern and historical models of atomic structure
- The organization and use of the periodic table of elements to obtain information
- Changes in matter and the relationship of these changes to the Law of Conservation of Matter and Energy
- States and forms of energy and how energy is transferred and transformed
- Temperature scales, heat, and heat transfer
- Characteristics of sound and technological applications of sound waves
- The nature and technological applications of light
- Scientific principles and technological applications of work, force, and motion
- Basic principles of electricity and magnetism

## GRADE 8 CORE CURRICULUM, continued

### SOCIAL STUDIES

#### World Geography

The focus of this course is the study of the world's peoples, places, and environments, with an emphasis on world regions. The knowledge, skills, and perspectives of the course are centered on the world's population and cultural characteristics, landforms and climates, economic development, and migration and settlement patterns. Spatial concepts of geography will be used as a framework for studying interactions between humans and their environments. Using geographic resources, students will employ inquiry, research, and technology skills to ask and answer geographic questions. Particular emphasis is placed on students' understanding and applying geographic concepts and skills to their daily lives.

The theme for grade eight is INTERACTION. The objectives focus on the interactions of people and their environment in such regions of the world as Africa, Antarctica, Asia, Australia, Central America, the Caribbean, Europe, the Middle East, North America, South America, and areas of the former Soviet Union. The content is organized around the key concepts of: location, place, human and environmental relationships, movement, and regions.

Students will

- Develop skills for geographical analysis
- Use maps, globes, photographs, and pictures
- Analyze how selected physical and ecological processes shape the Earth's surface
- Apply the concept of region
- Locate and analyze physical, economic, and cultural characteristics of world regions, including Latin America and the Caribbean, Europe, United States and Canada, North Africa and Southeast Asia, East Asia, Australia and the Pacific Islands, and Antarctica
- Compare and contrast the distribution, growth rates, and characteristics of human population in terms of settlement patterns and the location of natural and capital resources
- Analyze past and present trends in human migration and cultural interaction as they are influenced by social, economic, political, and environmental factors
- Identify natural, human, and capital resources and explain their significance
- Distinguish between developed and developing countries and relate the level of economic development to the standard of living and quality of life
- Analyze the global patterns and networks of economic interdependence
- Analyze how the forces of conflict and cooperation affect the division and control of the Earth's surface
- Analyze the patterns of urban development
- Apply geography to interpret the past, understand the present, and plan for the future

***Note: This course carries high school credit and will apply to high school graduation requirements. Please see pages 58 and 59 for more information.***

## GRADE 8 ELECTIVE AND NON - CORE COURSES

Having experienced a variety of exploratory and elective courses during sixth and seventh grades, Grade 8 students may choose two or more electives to study, which particularly interest them. An eighth grade student may select two full - year classes, one full - year and two semester classes, or four semester classes (depending on the individual school's schedules).

### FULL - YEAR ELECTIVES

#### ARTS EDUCATION

##### Guitar

Students will

- Demonstrate proper care and holding position for a musical instrument
- Demonstrate correct playing technique to produce a characteristic sound
- Develop the ability to tune the instrument using a tuner
- Receive an introduction to guitar fundamentals and reading standard music notation
- Play primary chord structures and harmony
- Play basic right hand techniques and melodic presentation styles
- Demonstrate learning through performances and presentations, with an emphasis on playing together in small groups or guitar ensemble

Students must purchase instructional books and have an acoustic (folk or classical) guitar.

##### Instrumental Music

The objectives for each class would include, but are not limited to those that are listed. Specific names may be given to these ensembles at each school.

In *Beginning Band* students will:

- Demonstrate proper care and holding position for a musical instrument
- Demonstrate correct playing technique to produce a characteristic sound
- Understand the basics of reading music and corresponding musical interpretation for accurate performance of pitch, rhythm, time signature, key signature, tempo, and expressive markings
- Develop the skill to play a range of one octave or beginning rudiments (percussion) and use these skills as a member of the ensemble
- Develop the ability to tune the instrument using a tuner
- Create simple rhythmic or melodic improvisations, 1 to 2 measures in length
- Play ensemble music with a steady beat using a metronome and in response to conducting gestures
- Demonstrate learning through appropriate performances and presentations

## GRADE 8 ELECTIVE AND NON - CORE COURSES (Full-year), continued

In *Advanced Band* students will:

- Enter with the skill set established in Intermediate Band
- Understand and respond to music notation, with special attention to phrasing
- Develop the skill to play a range of two octaves and a variety of rudiments (percussion), demonstrate these skills with sensitivity to blend and balance, as a member of the ensemble
- Identify key signatures and play the corresponding scale in selected major and minor keys
- Develop more advanced playing techniques as appropriate to include multiple mallets, multiple tonguing and alternate fingering / positions
- Create rhythmic or melodic improvisations, 4 - 8 measures in length
- Demonstrate learning through performances and presentations in a wide variety of styles
- Sight Read two grade levels below concert repertoire

In *Beginning Orchestra* students will:

- Demonstrate proper care and holding position for a musical instrument and bow
- Demonstrate correct playing technique to produce a characteristic sound, including pizzicato and basic bowing techniques
- Understand the basics of reading music and corresponding musical interpretation for accurate performance of pitch, rhythm, time signature, key signature, tempo, and expressive markings
- Develop the skill to play a range of one octave (first position) and double stops on open strings and use these skills as a member of the ensemble
- Develop the ability to tune the instrument using a tuner
- Create simple rhythmic or melodic improvisations, 1 to 2 measures in length
- Play with a steady beat using a metronome and in response to conducting gestures
- Demonstrate learning through appropriate performances and presentations

In *Advanced Orchestra* students will:

- Enter with the skill set established in Intermediate Orchestra
- Understand and respond to music notation, with special attention to phrasing
- Develop the skill to play a range of two octaves, refining facility in shifting and demonstrate these skills as a member of the ensemble
- Identify key signatures and play the corresponding scale in selected major and minor keys
- Develop more advanced playing techniques as appropriate to include vibrato, parallel bowing, spiccato
- Create rhythmic or melodic improvisations, 4 - 8 measures in length
- Demonstrate learning through performances and presentations in a wide variety of styles
- Sight Read two grade levels below concert repertoire

## GRADE 8 ELECTIVE AND NON - CORE COURSES (Full-year), continued

### Theatre Arts - Drama

Students will

- Use improvisation to create scripted and un - scripted material
- Manipulate the elements of design to create mood
- Explore elements of theater history
- Analyze and achieve consensus of interpretation concerning the dramatic elements of production
- Use elements of technical theatre to enhance characterization
- Develop objectivity in appraising personal abilities and creative endeavors

### Visual Arts

Students will

- Record the human figure with contour and gesture in two and three dimensional mediums
- Engage in a series of projects that are sequentially integrated lessons exploring one central visual concept or artistic problem
- Expand drawing skills through the use of line to create the effects of shade and linear perspective
- Apply design principles of unity, repetition and variety to a two or three dimensional art form
- Identify and analyze the uses of lettering as a graphic art
- Manipulate the elements of design to create mood

### Vocal Music

The objectives for each class would include, but are not limited to those that are listed. Specific names may be given to these ensembles at each school.

In *Beginning Chorus* students will

- Demonstrate proper posture, breath control, and mouth shape for good tone
- Understand the basics of reading music and corresponding musical interpretation for accurate performance of pitch, rhythm, time signature, key signature, tempo and expressive markings
- Develop the ability to match pitch accurately using a diatonic pitch system and maintain a part within the ensemble
- Create simple rhythmic or melodic improvisations, 1 to 2 measures in length
- Respond to conducting gestures
- Demonstrate learning through appropriate performances and presentations

In *Advanced Chorus* students will

- Understand and respond to music notation, in both treble and bass clef
- Develop the skill to sing an extended range, and with greater part independence, demonstrating these skills as a member of the ensemble
- Develop the ability to make refined pitch matching adjustments in a cappella singing of three and four art literature
- Create simple rhythmic or melodic improvisations, 4 - 8 measures in length
- Respond to conducting gestures involving changes of tempo, articulation and style
- Demonstrate learning through appropriate performances and presentations of Grade I literature, including solo performance as appropriate
- Sight Read two grade levels below concert literature

## GRADE 8 ELECTIVE AND NON - CORE COURSES (Full-year), continued

### ENGLISH

#### **Grade 8 Reading Strategies (Full-year)**

*Teacher and / or counselor recommendation*

Grade 8 Reading Strategies is highly recommended for students who need additional support with learning comprehension skills and strategies to prepare for the Grade 8 SOL in reading. The course will focus on the improvement of nonfiction reading and will use materials that will help students with reading across the content areas. High interest nonfiction selections will be used from the *Passport Journeys II* program to teach the requisite literacy skills that students need in order to comprehend a variety of texts. Explicit instruction in reading comprehension, guided practice, and independent reading are essential elements to the course. In addition to the reading curriculum, periodic reading assessments are given to document progress toward reading achievement goals. The content and materials are different from those used in Grade 7 reading.

#### **Grade 8 Writing (fall semester) AND Reading (spring semester)**

*Teacher and / or counselor recommendation*

This full year elective is designed for students who need strengthening in writing and reading. **Writing** will be the primary focus first semester in preparation for the grade 8 SOL test in the early spring. Students will receive direct instruction in descriptive, narrative, persuasive, and informational writing. They will also receive instruction in correcting writing, another important part of the writing SOL.

In **Reading**, students will build on the foundations for literacy developed in the previous grades. Students will apply critical reading strategies and reasoning skills across the content areas, including history and social science, science and mathematics. Enrollment in this course is based on test scores, classroom performance and counselor recommendations.

#### **Journalism**

This elective course requires students to produce a newspaper or news broadcast. Through their work, students learn about newspaper and broadcasting writing and production.

Students will

- Learn and use journalistic style
- Analyze print and / or television broadcasts for content and technical quality
- Write news articles including editorials, features, and sports and / or develop broadcast shorts including commercials, public service announcements, or news shows
- Learn the various jobs of journalistic work: proofreading, editing, laying out pictures and copy, writing headlines, script preparation and final production

#### **Yearbook**

In this course students produce the school yearbook. Through their work, students learn about publication writing and production.

Students will

- Learn and use journalistic style
- Learn the various jobs of publications: proofreading, editing, laying out pictures and copy, writing captions, and distribution
- Write a variety of yearbook articles
- Proofread and edit articles

## GRADE 8 ELECTIVE AND NON - CORE COURSES (Full-year), continued

### FAMILY AND CONSUMER SCIENCES

#### Life Management Skills

This course teaches higher order thinking skills through simulated life experiences such as family role play and caring for children, evaluation of short - and long - term goals, and assessments of different techniques to balance work and family. Students also complete various modules in a self - directed multimedia lab.

Students will

- Practice good time and money management
- Analyze factors affecting consumer choices
- Relate positively to friends and family members
- Learn basic clothing construction and care using state of the art machines
- Prepare well - balanced meals and understand the importance of good nutrition
- Experience differences in ethnic foods and cultures
- Maintain a clean work environment keeping food safe
- Learn how to handle conflict and solve problems
- Practice skills needed to take care of young children
- Explore dating situations
- Produce a successful food product by understanding and properly using a recipe
- Explore careers and related high school course selections

### FOREIGN LANGUAGE

*Note: The following foreign language courses carry high school credit and will apply to high school graduation requirements. Please see pages 58 and 59 for more information.*

*Successful completion of each of the following foreign language courses results in one credit toward the Advanced Studies Diploma. Depending on enrollment, these courses may be offered through distance learning.*

#### Arabic I

This course builds understanding, speaking, reading and writing skills and emphasizes basic Arabic sentence structure. Students develop beginning communication skills and learn about the diversity of the Arab world. Students learn sounds, stress patterns and intonation of the language. Basic structures and vocabulary are learned through practice in listening, speaking, reading and writing with emphasis on oral communication. Upon successful completion of the course, students will be able to understand and speak simple Arabic within the limited context presented to beginners. Reading selections will treat a recombination of previously learned words and sentences. Students will be able to write what has been previously learned through oral and reading activities. The principal topics include community, home and family life, the physical environment, health, education, work and leisure, food, shopping and current events.

#### Arabic II

*Prerequisite: Satisfactory completion of Level I or equivalent proficiency in the language*

This course continues to emphasize oral communication and to build skills in reading and writing at a novice proficiency level. Students increase vocabulary and continue to learn more about basic Arabic sentence structure and to apply basic grammatical structures. Reading and writing continues to focus on a recombination of previously learned materials. Topics treat every day themes relating to home, family, school, the physical environment, daily life and health and welfare.

## GRADE 8 ELECTIVE AND NON - CORE COURSES (Full-year), continued

### Chinese I

This course builds understanding, speaking, reading and writing skills and emphasizes basic Mandarin Chinese sentence structures. Students use the language within a limited context of vocabulary and structure with the ability to write short passages. Students learn the difference between formal and informal speech patterns and the subtleties of tone and context. Approximately 200 Chinese characters are learned. A general introduction to Chinese culture is also included. The principal topics include community, home and family life, the physical environment, health, education, work and leisure, food, shopping and current events.

### Chinese II

*Prerequisite: Satisfactory completion of Level I or equivalent proficiency in the language*

This course continues to build understanding, speaking, reading and writing skills and to emphasize Mandarin Chinese sentence structures. Students expand their vocabulary and their ability to interpret written and spoken language on topics related to everyday life. Additional traditional and simplified Chinese characters are introduced to provide a developmentally appropriate competency in reading. Phonetic transcription is learned to facilitate written communication of ideas. Chinese cultural practices and perspectives are introduced to help students understand the social structures, traditional ideas, attitudes and values of the Chinese people.

### French I

The focus for language learning is on real life, functional use of language through dialogues, skits and other creative, hands - on activities. Students develop skills and learn basic structures and vocabulary of the language through listening, speaking, reading, and writing activities.

Students will

- Use greetings, farewells and expressions of courtesy
- Take part in basic conversation about family, friends, and school
- Ask and answer questions based on familiar material
- Read menus, signs, schedules, and other authentic material
- Write short descriptions, messages, and guided compositions
- Study aspects of everyday life in the culture of the target language

### French II

*Prerequisite: Satisfactory completion of Level I or equivalent proficiency in the language*

Students continue to develop proficiency in listening, speaking, reading, and writing and develop a more broad understanding of cultural aspects of the target language.

Students will

- Express themselves in a variety future and past tense to talk and write about friends, family and school related topics, feelings, time, weather, and location
- Engage in more spontaneous, situational dialogues with learned materials
- Conduct an interview for basic biographical information
- Express opinions, likes, and dislikes
- React to authentic reading materials
- Begin to express themselves in creative writing activities
- Recognize similarities and differences between the U.S. and the target cultures

## GRADE 8 ELECTIVE AND NON - CORE COURSES (Full-year), continued

### Latin I

In this first Latin course, students are introduced to the language and life of ancient Rome. The primary goal of Latin I is the development of reading skills, supported by the skills of listening, speaking, and writing.

Students will

- Read adapted Latin narratives and simple original Latin
- Understand the essential elements of Latin pronunciation
- Learn a basic Latin vocabulary
- Learn the endings of Latin nouns and verbs and their functions
- Acquire a basic understanding of elementary Latin grammar
- Increase the knowledge of word building in Latin and English through the study of Latin roots, prefixes, and suffixes
- Learn about the daily life, customs, government, and mythology of the Romans

### Latin II

*Prerequisite: Satisfactory completion of Level I or equivalent proficiency in the language*

Students expand their skills by reading more complex and authentic Latin texts. They study Roman culture, history, and mythology in greater depth.

Students will

- Read longer and more difficult adapted Latin passages
- Begin to read original Latin passages in both prose and poetry
- Expand Latin vocabulary
- Continue to learn the forms of Latin words such as infinitives, participles, and the subjunctive
- Become familiar with complex grammatical principles
- See more clearly the impact of the Latin language on English and the Romance languages

### Spanish I

The focus for language learning is on real life, functional use of language through dialogues, skits and other creative, hands - on activities. Students develop skills and learn basic structures and vocabulary of the language through listening, speaking, reading, and writing activities.

Students will

- Use greetings, farewells and expressions of courtesy
- Take part in basic conversation about family, friends, and school
- Ask and answer questions based on familiar material
- Read menus, signs, schedules, and other authentic material
- Write short descriptions, messages, and guided compositions
- Study aspects of everyday life in the culture of the target language

## GRADE 8 ELECTIVE AND NON - CORE COURSES (Full-year), continued

### Spanish II

*Prerequisite: Satisfactory completion of Level I or equivalent proficiency in the language*

Students continue to develop proficiency in listening, speaking, reading, and writing and develop a more broad understanding of cultural aspects of the target language.

Students will

- Express themselves in a variety future and past tense to talk and write about friends, family and school related topics, feelings, time, weather, and location
- Engage in more spontaneous, situational dialogues with learned materials
- Conduct an interview for basic biographical information
- Express opinions, likes, and dislikes
- React to authentic reading materials
- Begin to express themselves in creative writing activities
- Recognize similarities and differences between the U.S. and the target cultures

### Spanish for Fluent Speakers I

*Prerequisite: Demonstrated oral fluency in Spanish as determined by the teacher.*

This course is designed for students who have oral fluency in Spanish but have not mastered basic reading and writing skills. Students develop communication skills in reading, writing, and speaking and begin the study of Spanish grammar. Students develop a deeper understanding of perspectives and practices of Hispanic culture.

Students will

- Participate in informal conversations and discussions
- Make oral presentations to small groups and to the class
- Identify main ideas and secondary ideas in authentic texts
- Make simple inferences and draw conclusions from readings
- Write informal notes and letters to friends and relatives
- Write short summaries
- Begin to develop an understanding of the influence of the Hispanic culture on the American heritage

### Spanish for Fluent Speakers II

*Prerequisite: Satisfactory completion of Level I or equivalent proficiency in the language*

This course is designed for students who already know how to read and write in Spanish at the basic level. Students continue to develop oral communication skills through oral presentations, role - play and skits. Students improve spelling and mechanics and write short compositions. They read original works and begin to interpret narratives. The study of grammar continues.

Students will

- Perform role - play dialogue and skits
- Participate in oral presentations
- Narrate and describe in past, present and future tenses
- Read short stories, legends, myths, plays and poetry
- Begin to write creatively

## GRADE 8 ELECTIVE AND NON - CORE COURSES (Full-year), continued

### MATHEMATICS

#### Algebra Prep Grade 8

To be offered as a semester or a year long elective

This grade 8 elective is highly recommended for students who need additional support and strategies to prepare for the grade 8 SOL in math and future participation in algebra. Enrollment in this course is based on test scores, grades, teacher and / or counselor recommendation.

#### High Intensify Language Training (HILT) Mathematics Block

This elective block course is intended for HILT middle school students who are at least two years below grade level and who need more instructional time in mathematics before moving into grade level mathematics classes. This transition course will provide HILT students with an opportunity to build conceptual understanding, focusing on fundamental standards of learning objectives. Students will also receive explicit instruction in the language of mathematics and mathematical reasoning.

### SPECIAL EDUCATION

#### Instructional Study Skills

Prerequisite: Student must be identified as in need of Special Education services

Course work is individualized based on the student's IEP and reinforces the needs of each student's general education courses. In addition, listening skills, writing skills, organizational and general study skills are emphasized.

## GRADE 8 SEMESTER ELECTIVES

The following courses are offered to eighth grade students on a semester basis.

### ARTS EDUCATION

#### Theatre Arts - Drama

Students will

- Use improvisation to create scripted and un - scripted material
- Manipulate the elements of design to create mood
- Explore elements of theater history
- Analyze and achieve consensus of interpretation concerning the dramatic elements of production
- Use elements of technical theatre to enhance characterization
- Develop objectivity in appraising personal abilities and creative endeavors

#### Visual Arts

Students will

- Record the human figure with contour and gesture in two and three dimensional mediums
- Engage in a series of projects that are sequentially integrated lessons exploring one central visual concept or artistic problem
- Expand drawing skills through the use of line to create the effects of shade and linear perspective
- Apply design principles of unity, repetition and variety to a two or three dimensional art form
- Identify and analyze the uses of lettering as a graphic art
- Manipulate the elements of design to create mood

## **GRADE 8 SEMESTER ELECTIVES, continued**

### **BUSINESS & INFORMATION TECHNOLOGY**

#### **Business Exploration**

Students will

- Research a variety of careers in business
- Focus on personal employability skills including interviewing, resume preparation, and characteristics of the successful employee
- Learn types of business ownership and standard business functions in the American economic system
- Investigate rights, responsibilities, and procedures in students' role as a consumer
- Complete projects on personal budgeting, maintaining a checking account, interpreting a paycheck, purchasing insurance and autos, choosing affordable housing, investing, and other consumer skills

#### **Computer Applications and Internet Technologies**

Students will

- Identify computer components and explain how they are used to process information
- Explain how computers interact with other computing systems and devices; how software and hardware work together to perform electronic tasks; and how software is developed and upgraded
- Demonstrate an understanding of the computer operating system
- Manipulate and control the Windows desktop, including file and disk management
- Identify how to change system settings and install and remove applications
- Apply keyboarding skills to compose, format, revise and edit documents
- Design and develop a database, a spreadsheet, and a slide show using appropriate applications
- Identify the appropriate use of email, and email "netiquette" protocol
- Identify the different types of web browsers
- Demonstrate the use of various Internet search engines and portals
- Explore the use of technology in various careers
- Prepare for the Internet Core Computer Certification (IC3) a nationally recognized industry certification for Computer Applications, Internet Technologies, and Computer Technologies

## **GRADE 8 SEMESTER ELECTIVES, continued**

### **Digital Input Technologies**

Students will

- Learn touch typing techniques and improve keyboarding speed and accuracy
- Learn and practice all capabilities and features of word processing software, including desktop publishing capabilities
- Improve skills in composing and editing, and use word processing to create documents for academic classes
- Practice formatting a variety of documents including business and personal letters, envelopes, charts, reports, term papers, and memos
- Research a variety of careers and become aware of personal employability skills including resume preparation and interviewing skills
- Explore business ownership and business functions in the American economic system
- Complete projects on maintaining a personal budget, balancing a checking account, interpreting a paycheck, purchasing insurance and autos, choosing affordable housing, investing, and other consumer - related skills
- Discuss workplace applications for new and emerging technologies (on - screen writing, speech recognition, and PDA)

### **FAMILY AND CONSUMER SCIENCES**

#### **Life Management Skills**

The following may or may not be addressed fully in this semester course.

Student will

- Practice good time and money management
- Analyze factors affecting consumer choices
- Relate positively to friends and family members
- Learn basic clothing construction and care using state of the art machines
- Prepare well balanced meals and understand the importance of good nutrition
- Experience differences in ethnic foods and cultures
- Maintain a clean work environment keeping food safe
- Learn how to handle conflict and solve problems
- Practice skills needed to take care of young children
- Explore dating situations
- Produce a successful food product by understanding and properly using a recipe

## **GRADE 8 SEMESTER ELECTIVES, continued**

### **Taking Charge**

This course helps students to “take charge” of their interpersonal relationships and plans for their future. Content focuses on self - esteem, values, decision - making and goal - setting skills, interpersonal and family relationships, and vocational planning.

Students will

- Identify and analyze how values affect behavior by teaching abstinence from high risk behaviors
- Explore the influence of gender roles and stereotypes
- Develop an awareness of choices and challenges
- Learn appropriate relationship behaviors through practicing positive communication and conflict resolution skills
- Participate in a parenting activity simulated through the use of a computerized doll
- Explore careers through job - seeking strategies, job requirements, and job - site shadowing

## **TECHNOLOGY EDUCATION**

### **Technological Systems**

Students combine resources and techniques into systems, realizing technology as a system. By simulating systems, assessing their impacts, and relating this experience to the two previous levels, students gain an insight into how to approach the problems and opportunities of a technological world in a broad sense. They also explore occupational areas and educational programs for technology - oriented careers.

Students will

- Be able to explain and use the problem solving process
- Identify tools, machines, and equipment located in the laboratory
- Demonstrate good safety practices when using the tools and equipment
- Be able to describe the system model to show input, process, output, and feedback components
- Keep information (sketches, notes, and reports) in a notebook or log
- Design and build carbon - dioxide - powered race cars and air transportation vehicles
- Apply materials, processes, and other resources to solve problems to improve the world
- Cycle through a number of modular lab stations

## **SPECIAL POPULATIONS**

### **Special Education Students**

The instruction of students with disabilities in the middle school is in accordance with federal and state regulations. Special Education consists of a sequence of programs for students who require specially designed instruction as the result of a disability. Students with disabilities are placed in the least restrictive environment based on their individualized education plan (IEP). Where appropriate, each student with a disability participates as a member of a teacher advisor group and / or is a member of an academic team. Individual Education Plans (IEPs) describe required services, accommodations and / or modifications and placement of identified students with disabilities.

### **Limited English Proficient Students**

The High Intensity Language Training (HILT) Program instructs students with limited English proficiency from beginning levels through advanced levels (HILTEX) until they are ready to enter mainstream classes. The HILT / HILTEX curriculum is aligned with the State English Language Proficiency (ELP) Standards and Standards of Learning.

Students identified as HILT A (Level 1) or HILT B (Level 2) study reading / language arts (a two - period block) with a trained HILT teacher. Students study science, social studies and mathematics with either a trained HILT teacher or mainstream teacher, and participate in mainstream electives and physical education classes. Students are recommended for mainstream mathematics based upon their mathematics skills.

Students identified as HILTEX A (Level 3) or HILTEX B (Level 4) study reading / language arts (a two - period block) with a trained HILTEX teacher. HILTEX students are enrolled in grade level mathematics, science, electives, and physical education classes. Students study social studies with either a trained HILTEX teacher or mainstream teacher.

Students identified as HILT and HILTEX pass on to the next proficiency level or mainstream English based upon identified HILT/HILTEX exit criteria which include criterion referenced tests, student portfolios, writing samples, recommended Degrees of Reading Power (DRP) scores, and the state approved English language proficiency assessment.

### **Gifted Students**

The middle school staff makes adjustments to meet the unique learning needs of students identified as gifted according to Arlington Public Schools Gifted Services Eligibility Process. For students identified gifted in academic areas, teams make provisions to provide challenge through strategies of curriculum differentiation and instructional regrouping. County - developed units of study and team - developed integrated units provide the differentiation. During team planning meetings, teachers in the core areas assign students to groups based on achievement levels and / or other criteria appropriate to the instructional activity. Within the arts areas, gifted students may take advantage of special opportunities within classes, in after - school activities, and through countywide activities such as Honors Band and Orchestra. For students with exceptional abilities, flexibility exists to meet individual needs through various student options, including acceleration of progress through school, and acceleration of progress through content.

The middle school holds an evening gifted services information meeting for parents concerning implementation of gifted services.

## **THE LIBRARY MEDIA CENTER**

The Library manages and provides instructional resources for learning and fosters the intellectual and social development of students. Students are taught information literacy skills to become independent learners and problem - solvers. The Library maintains a collection of on - site and online resources that takes into consideration subject content, developmental needs, broad perspectives, and cultural and ethnic diversity. Students use library materials in a wide variety of formats to retrieve, organize, document, analyze, evaluate, synthesize and present information in order to enhance their learning. Students also adhere to the Code of Ethics and Acceptable Use Policy for the appropriate use of information in print, multimedia, and online formats.

School Librarians instruct students in finding, using and integrating information into their curricular assignments. Collaborating with teachers, librarians also work to provide students with both instructional resources and the information literacy skills to enhance their learning experiences.

Students are encouraged to use the resources of the Library at their school (according to schedules provided at each individual school) and to use the various online resources available via remote access by using blackboard.

## **EXTRA CURRICULAR ATHLETIC PROGRAM**

The intramural and interscholastic sports programs are an integral part of the educational program. These programs serve as an outgrowth of the physical education program. They contribute to the physical, mental, emotional, and social needs of students by helping them realize their potential as valued members of their school and community.

Intramurals are conducted after school on Monday, Tuesday, Wednesday, and Thursday from 2:50 p.m. to 4:00 p.m. Schoolwide participation is the main objective; therefore, all students are eligible to participate in a wide variety of intramural activities.

The middle school interscholastic sports program offers students an opportunity to participate in competitions in swimming, boys' and girls' soccer and basketball, wrestling, track and field, and tennis.

## **SOCIAL EMOTIONAL GROWTH**

The middle school promotes the social and emotional growth of the early adolescent through specific activities as well as available services, instructional practices and organization. Students are assigned to teams in order to minimize the feeling of anonymity a large school may create. These smaller “communities” give students a sense of belonging and greater self - confidence, allowing them to grow academically as well as socially and emotionally. Teachers also consider the social and emotional needs of the early adolescent in planning their learning activities. Students have many opportunities to work in small groups, to cooperate and collaborate, and to select assignments which develop their interests and abilities. Such attention to the nature of the middle school student allows each to grow emotionally and socially even as he or she works academically.

## **TEACHER ADVISOR PROGRAM**

Every middle school student is assigned to a Teacher Advisor (T/A) group. These small groups of students meet frequently each week during the school day with their assigned staff member who works with them on topics and activities related to social and emotional development and adjustment to school and its demands. Units may include orientation to a new school (from how to open a locker to how to find the gym), new and old friendships, study skills, character education and preparation for high school. Most importantly, the Teacher Advisor is an adult in the school who knows the student / advisee well and to whom the student can turn with a question or a problem. T/A groups give students a small group as a "home base" within the larger context of the middle school.

## **STUDENT SERVICES**

The Department of Student Services includes counselors, school psychologists, visiting teachers / school social workers, attendance specialists, substance abuse counselors, and special education itinerant staff, including special education coordinators, speech / language pathologists, vision specialists, hearing specialists, integration facilitators, and occupational and physical therapists. The department maintains a cooperative relationship with school health services. A multi - disciplinary team model is used to assist in promoting the social and emotional growth of middle school students. Counselors are based in the schools, while other staff is assigned to schools for a portion of each week.

### **Counselors**

The school counseling program is an integral part of the school program. Counselors assist students to develop positive attitudes toward school and learning. In either individual or group settings, counselors encourage students to examine available educational and career opportunities and to make realistic plans and decisions for the future. Academic planning for high school begins in middle school with the development of a 6 - year academic plan. This plan allows parents and students to review the sequence of courses that will be needed to graduate and to achieve their academic goals. Academic plans are reviewed with each student annually, and plans are modified as needed.

Counselors work cooperatively with students and their families to address individual needs which may impact upon school success. Short - term individual or small group counseling may assist students in resolving personal and social issues which hinder their educational performance. Parental permission is required for students to participate in either structured individual or small group counseling, except in cases of crisis intervention or when parents / guardians cannot be reached after documented efforts. Parents / guardians may review the materials which are used in the school guidance and counseling program by contacting the Director of Counseling Services. Parents may notify the school in writing if they do not want their child to participate in personal / social guidance or counseling.

### **Psychologists**

Psychological services are available in the schools on a regular basis. School psychologists serve as members of the multi - disciplinary team which develops intervention plans for students who are experiencing learning or adjustment problems. They consult with parents, teachers, and other school staff about the intellectual, social and emotional development of students. Psychologists may conduct individual psychological evaluations to further the understanding of students. They may also provide short - term individual and group counseling services. Parental permission is required for students to participate in testing or counseling with the school psychologist. Psychologists direct parents and staff to appropriate community mental health resources when such services are needed.

## **STUDENT SERVICES, continued**

### **Visiting Teachers / School Social Workers**

School social workers and visiting teachers assist in identifying and implementing solutions to social, emotional, and learning problems by uniting the resources of the home, the school, and the community. They facilitate understanding between home and school by visiting the home when special concerns impact upon a student's academic progress. With parental permission, they may provide short - term individual and group counseling services. School social workers and visiting teachers make referrals to community resources and maintain a working relationship with these agencies so that there is effective coordination and follow - up of services.

### **Section 504**

Section 504 of the Rehabilitation Act of 1973 prohibits discrimination against persons with a disability in any program receiving federal financial assistance. The Arlington Public Schools are committed to a policy of avoidance and correction of any educational discrimination, assuring that students with disabilities have educational opportunities and benefits equal to those without disabilities. Under Section 504, a person is considered disabled if they (a) have a physical or mental impairment which substantially limits one or more major life activities (such as caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning or working), (b) have a record of such an impairment, or (c) are regarded as having such impairment.

Arlington Public Schools will evaluate and provide a free appropriate education to all students with disabilities. Parents are notified and encouraged to participate in all meetings pertaining to their student's eligibility under Section 504. (Students who are eligible for special education services under the Individuals with Disabilities Education Act are automatically eligible for protection under Section 504.) Parents should address questions and concerns about Section 504 to the Director of Counseling Services or to the principal of the school. Parents may appeal decisions by contacting the 504 Compliance Officer in the Department of Student Services at 703 - 228 - 6061.

### **Substance Abuse Counseling**

Arlington Public Schools provide information to students on substance abuse through the Health Program. The Department of Student Services works cooperatively with the Department of Human Services to provide substance abuse prevention and intervention services to the students in Arlington Public Schools. Prevention specialists provide substance abuse prevention education to students through classroom or small group presentations. Confidential substance abuse assessment is available to all students. Students and parents receive assistance with referrals to appropriate agencies for treatment services.

### **Special Education Coordinators**

Special Education Coordinators provide technical assistance to local school staff and parents. They function as the Director, Special Education designee at Student Studies, Eligibility meetings and IEP's. They assist schools in the development of quality special education services and monitor compliance with federal and state regulations. They plan and conduct professional development for Special Education Staff. Coordinators also work with staff / principals to ensure provision of specialized services in the least restrictive environment, participate in the development of programming for Special Education students, and coordinate summer school programs.

## **STUDENT SERVICES, continued**

### **Speech and Language Pathologists**

A speech and language pathologist provides therapy services to students with disabilities related to processing of language and expressive language skills, articulation skills, voice quality, speaking rate and rhythm, and fluency who have an Individualized Education Program (IEP) requiring these services. Screening and diagnoses precede the therapy sessions.

### **Vision Specialists**

A vision specialist provides itinerant services to students who are blind or have vision impairment. These students have an Individualized Education Program (IEP) requiring such services.

### **Hearing Specialists**

A hearing specialist provides itinerant services to students who are deaf or have a hearing impairment. These students have an Individualized Education Program (IEP) requiring such services. These students may also receive audio logical follow - up from an audiologist.

### **Occupational Therapists**

An occupational therapist provides therapy services to students with fine motor and sensory needs to students with disabilities who have an Individualized Education Programs (IEP) requiring such services.

### **Physical Therapists**

A physical therapist provides therapy services to students with gross motor disabilities who have an Individualized Education Program (IEP) requiring such services.

### **Adaptive Physical Education**

An adaptive physical education teacher provides a modified physical education program for students who have an Individualized Education Program (IEP) requiring such services.

### **Autism Specialists**

Autism specialists provide technical assistance to school staff and parents in the provision of special education services for students who have autism. They participate in eligibility and IEP meetings. Autism coordinators provide direct service to students. They also provide staff trainings, programming and curriculum development.

### **Behavior Specialists**

Behavior specialists provide technical assistance to school staff and parents on the use of positive behavioral supports for students exhibiting inappropriate behaviors that impact academic performance. They assist with Functional Behavior Assessments (FBA), development of Behavior Intervention Plans (BIP), crisis intervention plans and safety plans. They lead teacher training in CPI and provide ongoing workshops in behavior management for teachers, paraprofessionals and administrators.

## **HOMEBOUND INSTRUCTION**

Students unable to attend school because of an extended illness or other health, emotional, or behavioral problems for which medical or contracted services are required may receive homebound instruction at no cost. Requests for services are made through the school nurse. In extenuating cases, homebound services may be recommended for students with disabilities on a temporary basis. In such cases eligibility determination is made by the IEP committee in consultation with the supervisor, Special Programs.

## **STUDENT ACTIVITIES**

Clubs, student government, and other organizations provide many opportunities for students to develop socially and emotionally. Usually, these groups meet after school. Students are encouraged to participate; membership is not restrictive; and bus transportation is provided on a regular basis.

## **HOME / SCHOOL COOPERATION AND COMMUNICATION**

In order for the middle school student to grow intellectually, socially, emotionally, and physically, home and school must cooperate in the student's best interests. In order to cooperate, parents / guardians, teachers, and staff members must communicate. Many methods of communication exist, both formal and informal.

### **Reporting to Parents / Guardians**

Students receive a report card at the end of each nine - week grading period according to a schedule published and distributed to parents in September. At the midpoint of each of the four grading periods, each student receives an interim report from the core team of teachers indicating the student's current progress. Elective / exploratory teachers also issue interim reports to indicate unsatisfactory work, failing work, or work significantly below the ability level of the student. In addition to these formal methods of reporting to parents, many teams and individual teachers communicate through newsletters, notes, and student work, which are sent home.

### **Conferences**

All families are invited to conference with representative teachers on a designated non - student day in the fall and in the spring. In addition, a parent / guardian or a teacher may request a conference to discuss a child's progress at any time. A parent / guardian may meet with a student's core team to discuss a student. Frequently, the counselor organizes parent / guardian / teacher conferences.

### **Telephone Calls and Notes**

A parent / guardian may leave a telephone message for a teacher (who is generally in the classroom during most of the school day) or send a note requesting a response. Teachers will make every effort to respond as soon as possible. Parents / guardians may also call the counselor directly to ask a question concerning a student's progress.

### **Visits and Volunteering**

Parents / guardians can become more involved with the school and thus more aware of the student's environment through a number of avenues. The Parent Teacher Association (PTA) and volunteer services are two ways parents demonstrate interest and commitment. Students especially appreciate it when their parents or guardians attend student performances, athletic events, or particular meetings because such attendance demonstrates personal support.

## STANDARDIZED TESTING IN THE MIDDLE SCHOOL

The Virginia Board of Education requires that students take Standards of Learning (SOL) assessments in reading, mathematics, and history and social sciences in Grades 6, 7, and 8. Students in Grade 8 also test in writing and science. Students enrolled in Algebra or Geometry will take the SOL end - of - course test in that subject. The SOL tests are criterion - referenced tests designed to match Virginia's SOLs.

APS also administers two other tests at Grade 6. Students take the Stanford 10 Achievement Test in the fall. This is a national norm - referenced test that assesses what students have learned in reading, language arts, mathematics, science, and social science. The Degrees of Reading Power (DRP), is administered in both the fall and spring. The DRP is a criterion - referenced test that measures reading comprehension.

All high school students will be required to pass six high school end of course (EOC) tests to qualify for a standard diploma and nine to qualify for an advanced studies diploma. Students who fail any of the required tests will have additional opportunities to take the test again.

### Assessment Results

Results from tests taken by students will be mailed to parents after each test administration period. Overall results for schools and Arlington will be posted on the APS web site at [www.arlington.k12.va.us](http://www.arlington.k12.va.us).

## COURSES FOR HIGH SCHOOL CREDIT AT THE MIDDLE SCHOOL

When a student takes a course at the middle school level that carries high school credit (Algebra, Geometry, Arabic I / II, Chinese I / II, French I / II, Latin I / II, Spanish I / II, or World Geography), the parent / guardian of that student has the following choices.

- Count the credit (if earned) and course toward high school graduation requirements, and include the course final grade in the student's grade point average (GPA) when computed at the high school level.
- Do not count the course final grade in the student's grade point average when computed at the high school level, and do not count the credit (if earned) and course toward high school graduation requirements.

Parents will receive a notification of this option with their child's final report card. If the middle school staff does not receive the parent request to omit the course by the specified date, any credit earned and grade will be included in the student's high school records (based on Virginia Standards of Accreditation 2008).

## **OPTIONS FOR HIGH SCHOOL**

The high schools of Arlington Public Schools offer a comprehensive program to meet the intellectual and social / emotional needs of students. In addition to comprehensive high schools, Arlington Public Schools has a number of other options which families may wish to explore. These optional programs include the H-B Woodlawn Program, the International Baccalaureate Program, the Foundation Program for Academic Excellence, and the Thomas Jefferson High School for Science and Technology. Career and technical courses are also available to Arlington high school students through the Career Center.

Students who are interested in pursuing an International Baccalaureate Diploma in high school are encouraged to take Spanish, French, or Latin I at Grade 7 and Spanish, French or Latin II at Grade 8. They are also encouraged to enroll in Algebra I in Grade 8. Accommodations through summer school may also be made.

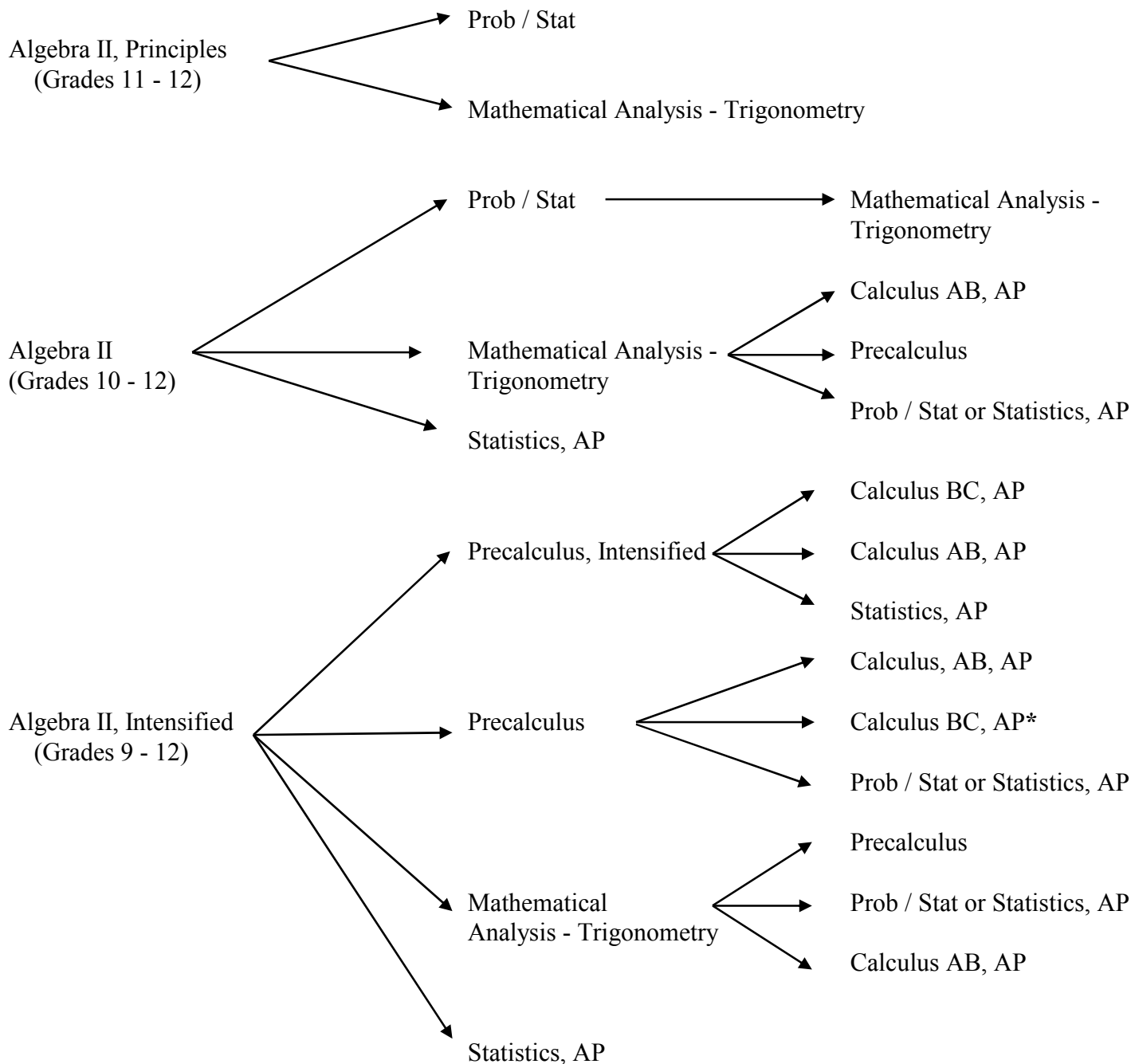
For further information about high school options, please contact the Department of Counseling Services in the middle schools or the Office of Student Services.

**SUGGESTED MATHEMATICS COURSE SEQUENCES  
2010 - 11**

Courses taken prior to high school	<b>Middle School Mathematics Courses Grades 6 - 8</b>			Algebra I (23130) in Middle School	Algebra I, Intensified (13140) and Geometry, Intensified (23141) in Middle School
<b>9th Grade Freshman Year</b>	HILT Mathematics* (20785)	General Math I* (23115) Or High School General Math* (23120) Or Algebra I, Part I (23131)**	Algebra I (23130) or Algebra I Block (23133)	Geometry (23143) or Geometry, Intensified (23141)	Algebra II, Intensified, (23136)
<b>10th Grade Sophomore Year</b>	General Mathematics I* (23115) Or Algebra I, Part I (23131)	Algebra I Block (23133) Or Algebra I (23130) Or Algebra II, Part II (23132)	Geometry (23143) or Geometry, Principles (23142) or Geometry, Intensified (23141)	Algebra II (23135) or Algebra II, Intensified (23136)	
<b>11th Grade Junior Year</b>	Algebra I Block (23133) or Algebra I (23130) Or Algebra I, Part I (23131)	Geometry, Principles (23142) Or Geometry (23143)	Algebra II, Principles (23139) Or Algebra II (23135) Or Algebra II, Intensified, (23136)	<b>See sequence for courses following second year algebra on the next page</b>	
<b>12th Grade Senior Year</b>	Geometry, Principles (23142) or Geometry (23143) Or Algebra I, Part II (23132)	Algebra II, Principles (23139) Or Algebra II (23135) Or Algebra II, Intensified (23136)			
<p><b>NOTES:</b> Other disciplines may have mathematics requirements that affect course sequences. For example, some science courses require completion or concurrent enrollment in specific mathematics courses. See Science course descriptions.            *Elective credit - does not meet mathematics requirement for graduation.            **Students who earn a mathematics unit of credit for Algebra I, Part I prior to entering the ninth grade in the 2010 - 2011 academic year may complete the Algebra I graduation requirement by completing an Algebra I or an Algebra I, Part II course. Beginning with the ninth-grade class of 2010 - 2011, only one unit of credit each may be used to satisfy the mathematics graduation requirements by completing Algebra I or Geometry. Students receiving a Modified Diploma will continue to receive a math credit for Algebra I, Part I.</p>					

## MATHEMATICS SEQUENCE

**Assume Completion of Algebra I and Geometry**



**\* Students may take Multivariable Calculus through Distance Learning following completion of Calculus BC, AP.**

## GRADUATION REQUIREMENTS

(beginning with Class of 2014)

(for graduation purposes, student groups are defined by their first year in grade nine, i.e. 2010 - 11 and beyond)

Discipline Area	Standard Diploma		Advanced Studies Diploma		Modified Standard Diploma for students with disabilities
	Credits	# of Verified	Credits	# of Verified	Credits
English	4	2	4	2	4
Mathematics	3 <sup>1</sup>	1	4 <sup>1</sup>	2	3
Laboratory Science	3*	1	4**	2	2
History and Social Sciences	3***	1	4****	2	2*****
Foreign Language, Fine Arts or Career and Technical Education	2 <sup>2</sup>		4 <sup>3</sup>		1 <sup>4</sup>
Health and Physical Education	2		2		2
Economics and Personal Finance	1		1		
Electives	4 <sup>5</sup>		3		6 <sup>5</sup>
Additional Verified Credit in Mathematics, Laboratory Science, or History and Social Sciences		1 <sup>6</sup>		1 <sup>6</sup>	0
<b>TOTALS</b>	<b>22</b>	<b>6</b>	<b>26</b>	<b>9</b>	<b>20<sup>a</sup></b>

- \* Courses completed must include offerings from at least two different science disciplines: Earth Space, Biology, Chemistry, or Physics or the completion of the sequence of science courses required for the International Baccalaureate Diploma.
- \*\* Courses completed must include offerings from at least three different science disciplines: Earth Space, Biology, Chemistry, or Physics.
- \*\*\* High School courses completed must include U.S. and Virginia History, U.S. and Virginia Government and one World History / Geography course.
- \*\*\*\* Courses completed must include U.S. and Virginia History, U.S. and Virginia Government and two of these courses: World Geography, World History / Geography Part I, World History / Geography Part II, or Advanced Placement European History.
- \*\*\*\*\*US and Virginia History & US and Virginia Government for Modified Standard Diploma
- 3<sup>1</sup>, 4<sup>1</sup> Courses must be at or above the level of Algebra I
- 2<sup>2</sup> Credits earned must include one credit in fine or performing arts or career and technical education
- 4<sup>3</sup> Foreign language courses must be 3 years of one language or 2 years each of two languages
- 1<sup>4</sup> Course must be in in Fine Arts or Career and Technical Education
- 4<sup>5</sup>, 6<sup>5</sup> Courses must include at least two sequential electives
- 1<sup>6</sup> Course is student selected
- 20<sup>a</sup> Students must pass the 8<sup>th</sup> grade SOL Examinations in English and Mathematics or a specified substitute test.

When students below the 9th grade successfully complete courses offered for credit in grades 9 - 12, credit shall be counted toward meeting the standard units required for graduation provided the courses meet SOL requirements or are equivalent in content and academic rigor to those courses offered at the secondary level, or verified units provided students achieve a passing score on end of course SOL tests.

Verified credits signify that the student has passed the end - of - course Standards of Learning test administered for the required course. Standards of Learning end - of - course tests are given for Algebra I, Geometry, Algebra II, Earth Space Science, Biology, Chemistry, World History / Geography Part I, World History / Geography Part II, World Geography, and United States and Virginia History.

## GRADUATION REQUIREMENTS, continued

(beginning with Class of 2014)

(for graduation purposes, student groups are defined by their first year in grade nine, i.e. 2011 and beyond)

Discipline Area	Standard Technical Diploma		Advanced Technical Diploma	
	Credits	# of Verified	Credits	# of Verified
English	4	2	4	2
Mathematics	3 <sup>1</sup>	1	4 <sup>1</sup>	2
Laboratory Science	3*	1	4**	2
History and Social Sciences	3***	1	4****	2
Foreign Language, Fine Arts or Career and Technical Education	5 <sup>3</sup>		4 <sup>4</sup>	
Health and Physical Education	2		2	
Economics and Personal Finance	1		1	
Electives	1		3	
Additional Verified Credit in Mathematics, Laboratory Science, or History and Social Sciences		1 <sup>6,7</sup>		1 <sup>6,7</sup>
<b>TOTALS</b>	<b>22</b>	<b>6</b>	<b>26</b>	<b>9</b>

\* Courses completed must include offerings from at least two different science disciplines: Earth Space, Biology, Chemistry, or Physics or the completion of the sequence of science courses required for the International Baccalaureate Diploma.

\*\* Courses completed must include offering from at least three different science disciplines: Earth Space, Biology, Chemistry, or Physics.

\*\*\* High School courses completed must include U.S. and Virginia History, U.S. and Virginia Government and one World History / Geography course.

\*\*\*\* Courses completed must include U.S. and Virginia History, U.S. and Virginia Government and two of these courses: World Geography, World History / Geography Part I, World History / Geography Part II, or Advanced Placement European History.

\*\*\*\*\* US and Virginia History & US and Virginia Government for Modified Standard Diploma

3<sup>1</sup>, 4<sup>1</sup> Courses must be at or above the level of Algebra I

2<sup>2</sup> Credits earned must include one credit in fine or performing arts or career and technical education

5<sup>3</sup> One credit must be in foreign language or fine arts; four credits must be in Career and Technical Education with a career concentration. If the career concentration has a State approved assessment then the assessment must be taken to receive credit.

4<sup>4</sup> Foreign language courses must be 3 years of one language or 2 years each of two languages; if 2 years each of two languages is chosen then an additional credit in Fine Arts or Career and Technical Education must be earned.

1<sup>6</sup> Students may utilize additional tests for earning verified credit in computer science, technology, career and technical education, economics, or other areas as prescribed by the State Board of Education

1<sup>7</sup> Course is student selected

When students below the 9th grade successfully complete courses offered for credit in grades 9 - 12, credit shall be counted toward meeting the standard units required for graduation provided the courses meet SOL requirements or are equivalent in content and academic rigor to those courses offered at the secondary level, or verified units provided students achieve a passing score on end of course SOL tests.

Verified credits signify that the student has passed the end - of - course Standards of Learning test administered for the required course. Standards of Learning end - of - course tests are given for Algebra I, Geometry, Algebra II, Earth Space Science, Biology, Chemistry, World History / Geography Part I, World History / Geography Part II, World Geography, and United States and Virginia History.

# IMPORTANT NOTES

A vertical notebook page with rounded corners and a black border. The page is ruled with horizontal lines. On the left side, there are three circular binder holes. The text 'IMPORTANT NOTES' is printed in a bold, black, serif font at the top center of the page.

The Arlington Public Schools prohibits discrimination on the basis of race, religion, sex, sexual orientation, national origin, age, disability, pregnancy or marital status. This policy provides equal access to courses and programs, counseling services, physical education and athletics, vocational education, instructional materials and extra - curricular activities. Violations of this policy should be reported to the Assistant Superintendent of Administrative Services at (703) 228 - 6008 or the Assistant Superintendent for Personnel at (703) 228 - 6110.