



# SCIENCE, MATHEMATICS, AND COMPUTER SCIENCE

# Magnet Program

Montgomery County Public Schools, Rockville, Maryland

For Grades 9 through 12

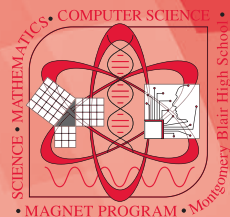
## Montgomery Blair High School

An International Baccalaureate  
Middle Years Programme School

51 University Boulevard, East  
Silver Spring, MD 20901  
301-649-8240

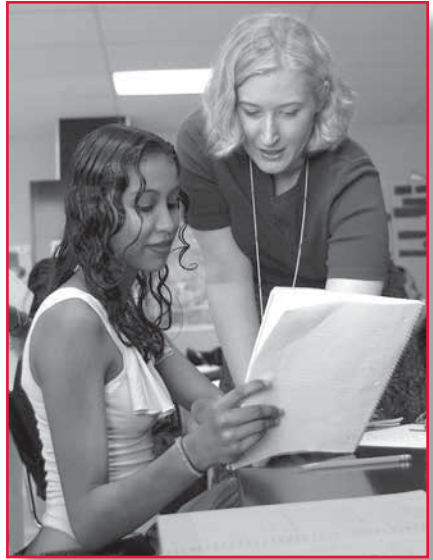
For more information, visit

[www.montgomeryschoolsmd.org/curriculum/specialprograms](http://www.montgomeryschoolsmd.org/curriculum/specialprograms)



## The Program

The Science, Mathematics, Computer Science magnet program opened in September 1985 as a special program designed to offer accelerated, interdisciplinary courses in science, mathematics, and computer science for highly able students. The program has since grown to a full program that provides a unique sequence of courses and enrichment opportunities for students in Grades 9 through 12. A new facility opened in August 1998 providing state-of-the-art equipment and other resources to challenge students to study, learn, and experiment in all disciplines. The result is an exceptional educational environment unlike any other public high school.



The program is located in Montgomery Blair High School to help promote high-quality, integrated education and to enhance learning opportunities for highly able students from across the county. Its location in a comprehensive high school and the eight-period day have the further advantage of offering students a full range of liberal arts courses. In addition, magnet students have been active in student government and all forms of arts, athletics, and extracurricular activities.

Those students selected for this program can build an extraordinary foundation in all subject areas, better understand their interrelationships, and participate in unique research opportunities. Each day students take four courses with the magnet staff within the magnet facilities. Other courses required for the Maryland high school diploma and college admission, such as English, foreign languages, social studies, and electives, are taken with students of comparable academic and intellectual ability.

## The Faculty

Magnet faculty members were selected based on their academic achievement in at least one of the magnet's disciplines, superior teaching abilities, and their interest in working with highly able students. All staff members have advanced degrees and have received numerous awards and honors.

## The Setting

Montgomery Blair High School has played a prominent role in Montgomery County since 1935. Each year its graduates receive local and national recognition. Recent awards to students have come from such activities as the Science Talent Search, International Science and Engineering Fair, National Science Bowl, American Computer Science League, American Regions Mathematics League, Junior Science and Humanities Symposium, Ocean Science Bowl, and Envirothon. Students from the Blair Magnet Program have qualified for the United States training camps for the International Physics, Biology, Mathematics, Computer Science and Linguistics Olympiads.



With the magnet program, Montgomery Blair offers students an unparalleled breadth of courses and facilities. These include traditional comprehensive high school offerings, Advanced Placement and Honors courses, the magnet sequence, and unique opportunities with partners and mentors from research and business.

The Montgomery Blair campus in Silver Spring is located at the intersection of Colesville Road and University Boulevard East. The school is approximately two miles north of the Silver Spring Metro station and is convenient to both metro and Montgomery County Ride-On buses.

## The Students

Students selected for the magnet program have a unique opportunity to interact with intellectual peers who share their interest in all disciplines, especially mathematics, science, and computer science. The curriculum is designed so that each student is able to build a solid foundation in Grades 9 and 10. During the junior and senior years, students have opportunities to go beyond traditional high school offerings, with more than 25 special courses and additional guided research opportunities available. Also, they are expected to do a senior project, which culminates their four-year experience.



# MCPS Science, Mathematics and Comp

Grade		Mathematics		
<b>REQUIRED COURSES</b>	Grade 9	Geometry A/B	Precalculus A/B	Functions A/B
	Grade 10	Precalculus A/B	Precalculus C/ Analysis 1A	Analysis 1A/B
	Grade 11	Precalculus C/ Analysis 1A	Analysis 1B	Analysis 2A/B
	Grade 12	Analysis 1B		
<b>ELECTIVES</b>		Applied Stats Advanced Geometry Complex Analysis Discrete Math Linear Algebra Logic Origins of Math Guided Research in Statistics		

# Computer Science Magnet Course Sequence

Science	Interdisciplinary	Computer Science
Advanced Science 1: Physics Advanced Science 2: Chemistry	Research & Experimentation: Techniques for Problem Solving A & B	Fundamentals of Computer Science A & B
Advanced Science 3: Earth Space Systems Advanced Science 4: Biology A & B	Principles of Engineering A	Algorithms and Data Structures A & B
	Principles of Engineering B	
Analytical Chemistry Astronomy Biological Chemistry Cellular Physiology Entomology Genetics Immunology Marine Biology Optics Organic Chemistry Physical Chemistry Plate Tectonics/ Oceanography Thermodynamics Quantum Physics	Robotics Materials Science Origins of Science	AI/LISP Analysis of Algorithms Computational Methods Graphics Modeling & Simulation Software Design 3-D Graphics

*continued from page 3*

Student selection is based on the following criteria:

- Demonstrated interest in mathematics, science, and computer science
- A high achievement record in mathematics and science
- Recommendations from teachers and others familiar with the student's work
- Demonstrated ability to pursue inquiry and research and think critically
- High scores on aptitude, achievement, and critical thinking tests

## General Information

Students who are accepted into the magnet transfer into the program at the end of Grade 8. They would be expected to complete their high school education at Blair.

### Schedule

Magnet program students attend classes from 7:45 a.m. to 3:20 p.m. each day. All extracurricular activities are open to magnet students.



### Transportation

School bus transportation to and from Blair is provided from central locations throughout Montgomery County. These locations are selected to serve the maximum number of students. Transportation between home and the central pick-up point is the student's responsibility.

## To Learn More

An informational meeting about the magnet program will be held in the fall. The location and date can be obtained by contacting the magnet office at 301-649-8240.

Applications information is available from the county website—

*[www.montgomeryschoolsmd.org/curriculum/specialprograms/](http://www.montgomeryschoolsmd.org/curriculum/specialprograms/)*

and school's website—

*<https://mbhs.edu/departments/magnet/>*

Applications should be submitted, electronically when possible, by the designated deadline in November.

### **For more information, contact:**

Montgomery Blair High School  
Magnet Program Coordinator  
51 University Boulevard East  
Silver Spring, MD 20901  
Phone: 301-649-8240

# MCPS NONDISCRIMINATION STATEMENT

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

For inquiries or complaints about discrimination against MCPS staff *	For inquiries or complaints about discrimination against MCPS students *
Office of Employee Engagement and Labor Relations Department of Compliance and Investigations 850 Hungerford Drive, Room 55 Rockville, MD 20850 240-740-2888 OC00-EmployeeEngagement@mcpsmd.org	Office of the Chief of Staff Student Welfare and Compliance 850 Hungerford Drive, Room 162 Rockville, MD 20850 240-740-3215 COS-StudentWelfare@mcpsmd.org

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

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

.....  
Maryland's Largest School District

## MONTGOMERY COUNTY PUBLIC SCHOOLS

Published by the Department of Materials Management  
for the Division of Consortia Choice and Application Program Services (DCCAPS)  
0416.20ct • Editorial, Graphics & Publishing Services • 9/19 • 2K 