

Office of the Superintendent of Schools
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

April 12, 2005

MEMORANDUM

To: Members of the Board of Education

From: Jerry D. Weast, Superintendent of Schools

Subject: Update on International Baccalaureate Programs

Executive Summary

The purpose of this memorandum is to provide the Board of Education with an update on the status of the K–12 International Baccalaureate Programs in the Montgomery County Public Schools (MCPS). The following topics are addressed in this memorandum: an overview of the development of International Baccalaureate Programs in MCPS, current status of each of the programs, rates of student participation, and benefits and future challenges for MCPS. Currently, there are five Diploma Programs, two authorized Middle Years Programs with two additional programs in the authorization process and a fourth middle school in the investigative stage, and one Primary Years Program. Combined, these programs have the capacity to serve approximately 6,100 students.

Background

Expansion of International Baccalaureate (IB) Programs over the past five years to a K–12 articulation demonstrates our commitment to providing students with a world-class education. Hundreds of students who otherwise might not have had access to such programs are meeting the challenges of the rigorous and high-level instruction and posting impressive achievement results on IB assessments. IB Programs K–12 support the mission and goals of the MCPS strategic plan by providing a rigorous educational program to students throughout the county and offering teachers the opportunity to refine and enhance their professional skills.

The International Baccalaureate Organization (IBO) is a nonprofit international education organization that offers three distinct research-based programs spanning the elementary, middle, and secondary grades. Founded in 1968 by a group of educators seeking to establish a common high school curriculum and university entry credentials for children of diplomats and other internationally mobile students, the IB Program has become widely recognized for offering excellent curriculum and rigorous assessments which distinguish diploma recipients as being highly motivated, dedicated young scholars. Students successfully completing the Diploma

Program earn college credit along with earning the internationally recognized IB Diploma. In the United States, 426 schools offer the Diploma Program. Maryland has 12 authorized programs, with five in Montgomery County.

The success of the Diploma Program both here and abroad prompted the IBO to design a Middle Years Program (MYP) in 1994 for students in Grades 6–10 who see themselves as potential candidates for challenging high school programs. Forty-nine schools nationwide have authorized MYP models. MCPS offers the only two authorized Middle Years Programs in Maryland.

In 1997, IBO introduced a Primary Years Program (PYP) for students in Grades Pre-K–5 to offer them interdisciplinary, inquiry-based instruction. Currently, 30 schools nationwide are authorized to offer PYP. MCPS is the only school system in Maryland that offers the program. Each IB program provides academically-challenging standards, opportunities for creativity, inquiry, skill development, and a variety of perspectives. The ultimate goal is to develop critical thinkers who will be socially responsible members of local communities and a global society.

Over the past 18 years, MCPS has developed five Diploma Programs, implemented two Middle Years Programs (MYP) for Grades 6–10 that have been fully authorized, initiated planning for two additional Middle Years Programs, and implemented a Primary Years Program at one elementary school. This expansion of programs has enabled 3,700 students currently to participate in IB programs, compared to the 400 who participated in the early years of the Richard Montgomery High School (RMHS) countywide model.

Initial International Baccalaureate Efforts

MCPS established its first IB Diploma Program at RMHS in 1987. This countywide model has grown into a lighthouse program not only in the county, but in Maryland and nationally as well. Originally funded for 100 students countywide each year, the program has been expanded to accommodate additional students whose successful completion of a five-year Middle Years Program begun at Julius West Middle School (JWMS) and completed at RMHS prepares them for the challenging Diploma Program in Grades 11 and 12.

In 1998, a state grant provided funding for MCPS to investigate and establish the first Middle Years Program in Maryland. This schoolwide program was placed at JWMS, the sole feeder middle school for RMHS. The program continued at RMHS in Grades 9 and 10. It was authorized in 2003. Thus, a Grades 6–12 continuum of IB programs within one articulation pattern was established. To complete the pattern, an all-school PYP was initially funded through a state grant to MCPS in 2001 and was placed at College Gardens Elementary School, an elementary that feeds into JWMS. The three programs are comprehensive, with an integrated approach to learning across disciplines, and with emphasis on meeting the challenges of living and working in a global, technological society. (See Attachment A.)

Each program requires that student performance be measured against specified levels of achievement that are equally applied in all IB schools worldwide. All students are assessed against the same criteria through examinations, oral commentaries, essays, portfolios, and presentations. The IBO emphasizes the use of formative assessments at different stages of the learning process to measure student progress and to enable teachers to adjust instruction accordingly. In addition, students continuously self-assess against high IB standards.

K–12 Articulation of International Baccalaureate Programs

High School Models

Currently, MCPS has three authorized Diploma Program models in place: the countywide program at RMHS; the consortium model at both Springbrook High School, authorized in 1998, and Einstein High School, authorized in 2003; and the signature models at Bethesda-Chevy Chase High School (B-CC), authorized in 1997, and Watkins Mill High School, authorized in 2003. The countywide model enables Grade 8 students from any middle school to apply. Students complete an application packet, seek three teacher recommendations, and take a standardized assessment with both a verbal and a quantitative reasoning component. Students also complete a writing sample. This year, there were 685 applicants for the 100 positions in the countywide program.

The signature models at B-CC and Watkins Mill high schools are open only to students in their articulation patterns. Students express an interest in pursuing the IB Diploma Program and are enrolled in Pre-IB courses for Grades 9 and 10. Prospective students also meet with the program coordinator, who counsels and advises them. This open enrollment approach grants access based on student interest and motivation.

The consortium models at Springbrook and Einstein high schools have similar open enrollment procedures. The option to choose a high school with an IB Diploma Program enables all students across the consortium to request access. Consortium and signature staff recruits potential candidates for their respective programs through outreach to students in honors and on-level classes, teacher recommendations, parental support and encouragement, self-selection, records of student performance, and evidence of potential. Program coordinators seek motivated students who have demonstrated a willingness to work hard. There is extensive outreach to all students.

Each of the three program models contributes to the understanding of what students can achieve with challenge and support. At a time when states and school districts are defining learning standards around proficiency and grade-level attainment, these programs create a vision of high expectations for students documented through their products and examinations. They help students meet and exceed graduation standards. Moreover, these programs promote a culture of academic commitment and courage, teaching students how to prepare not only for college-level work and examinations, but also for how to be accountable for effort and results.

The Diploma Program

Of the 974 IB Diploma schools worldwide, RMHS is the 42nd largest, based on the number of IB examinations administered in May 2004. Test results from these examinations showed RMHS having a 97 percent full diploma pass rate as compared to the worldwide average of 78 percent. On four of these exams, RMHS exceeded worldwide averages by at least one point on a scale of 1–7.

The original model for the school system, RMHS offers the widest array of courses and exams of the five IB Diploma schools within the MCPS. It serves as a resource for other IB Diploma schools in the county and around the state. Within the past year, the school has provided informal training for or hosted visiting teachers and administrators from Anne Arundel County; Prince George's County; Atlanta, Georgia; and New Zealand. In addition, RMHS has provided training and implementation support to each of the other IB Diploma schools within MCPS.

The growth of the Diploma Programs at Richard Montgomery, B-CC, and Springbrook high schools has contributed to the expansion of each school's AP program. Because IB teachers also instruct Honors and AP courses, there is cross training. Strategies are shared whole school. (See Attachment B.) We anticipate similar results as the IB programs at Einstein and Watkins Mill high schools evolve.

The development of the MYP at Julius West as a second source of IB Diploma candidates has increased expectations for hundreds of students. The coordinators of both middle and high school programs work closely to link instructional levels. The transition from Grade 10 to Grade 11 has been aligned to such a point that both pre-IB and MYP students receive similar preparation for success in the IB Diploma Program. Several pre-International Baccalaureate Diploma Program teachers also teach MYP courses. This helps align expectations and levels of instruction. Many MYP students set the goal of admission into IB for Grade 11, plan their course selections accordingly, and develop a record of achievement and high performance. To ensure a smooth transition of Westland MYP students to B-CC in the fall of 2005, coordinators of both schools are planning a summer orientation program for these rising ninth graders. It is anticipated that high expectations for these students and levels of instruction also will grow future IB Diploma candidates.

The Middle Years Program

The power of MYP at Julius West and Westland middle schools to grow potential candidates for the RMHS Diploma Program is supported in a number of important ways. Both schools use a research model that enables students to develop and hone their skills as researchers. This preparation builds capacity in students and prepares them for the Extended Essay, a requirement for students pursuing the IB Diploma. MYP teachers visit MYP classes and Diploma classes at RMHS and B-CCHS to ensure a strong transition for their students by recognizing the level of instruction at the high school level and adjusting theirs accordingly. Particularly important to this

transition is the articulation between Grade 8 and Grade 9 teachers who work to maintain continuity of the program.

The systematic approach to assessment provides further evidence of the power of MYP. By exposing their MYP students to IB assessments in Grade 6, teachers begin the process of formative assessment that is continued at the high school level. Students record their progress, maintain portfolios of work, set goals, and proceed to the next level of performance. They take responsibility for their own learning and recognize the role that effort plays in academic achievement.

The MYP requirement that students study a second language aids in the development of student potential for Diploma candidacy. At JWMS, able and motivated students may begin Spanish or French in Grade 6 or Grade 7 with the option of taking Level 1 in one school year, beginning in Grade 7, or extending Level 1 over two years. Chinese language was added in 2004 to prepare interested students who elect to continue Chinese at RMHS. Thus, linguistically-talented students could exit Grade 8 having completed Level 2 of a language and could continue at an advanced level in Grade 9. Because an IB Diploma candidate is required to enter foreign language at Level 4 in Grade 11, the MYP second language opportunity at JWMS enables potential Diploma candidates to meet the requirement. At Westland Middle School (WMS), Italian is being offered, there is a Spanish immersion program, and both French and Spanish are offered.

The MYP has enhanced effectiveness of the professional staff and contributed to greater cohesiveness at both schools. The collaboration, consensus, and communication needed to implement such a program benefit the students and the staff, alike. Professional discussions about instruction, group scoring of formative assessments, and sharing of best practices has led to more rigorous instruction and increased student achievement.

The inclusive MYP at Julius West and Westland middle schools has important implications for increasing meaningful access to challenging opportunities for MCPS students who have been traditionally underserved in gifted and other accelerated programming. Because it is structurally and pedagogically designed to build student capacity at the middle school level, MYP provides a springboard for challenging high school work.

Silver Spring International and Newport Mill middle schools are working toward full authorization as MYP schools. Francis Scott Key Middle School is in the early investigative stage to become an authorized MYP.

The Primary Years Program at College Gardens

PYP at College Gardens Elementary School (CGES) was introduced in the Richard Montgomery cluster in August 2002. A whole school model, the program is intended to increase the capacity for critical thinking and academic achievement among all students and increase meaningful

access to more challenging courses and programs for traditionally underserved students. With the establishment of PYP at CGES, the Richard Montgomery cluster became the only cluster in the state of Maryland to offer a K–12 continuum of IB programming.

The PYP offers a comprehensive, inquiry-based approach to teaching and learning. It is designed for all children K–5. The program focuses on the development of the whole child. It provides a framework that meets their academic, social, physical, and emotional needs. Like the MYP and the Diploma Program, PYP encourages inquiry-based learning, interdisciplinary study based on concepts, and an international perspective. Students in Grades K–5 explore six units of inquiry developed by their teachers based on MCPS curriculum. These units offer students the opportunity to explore broad concepts, acquire important skills and knowledge, foster positive attitudes, and make socially-responsible decisions. Distinctive characteristics of the PYP include the concepts of organizing themes and an international student profile.

The IBO specifies six questions or themes that provide the organizational structure for the units of inquiry. Each grade explores these themes every year. The questions lead the children into an exploration of knowledge that has both local and global significance. Teachers develop the units of inquiry and align them with MCPS curriculum. Integral to each unit of inquiry are questions asked by the students. Through exploration and investigation, they develop skills to conduct research, empowering them with the tools to understand their world.

In developing the units of inquiry, teachers integrate reading, writing, and language around science and social studies topics and indicators. They also include technology as a teaching and learning tool in each unit. Formative assessments are built into each unit of inquiry and are designed to assess the enduring understandings defined in the MCPS curriculum. To promote consistency within the school and to build student capacity for doing research, CGES has introduced a research model that is used in Grades 3–5. This research will serve students well as they move into JWMS and the MYP.

Demographics of Students Participating in Authorized IBO Programs

The inclusive PYP model at CGES and the inclusive MYP models at JWMS and WMS reflect each school's demographics. There is evidence that the interaction between MYP and the Diploma Programs is promising.

Programs	African American		Asian American		Hispanic		White		American Indian		Total	FARMS	Spec Ed	ESL
	No.	%	No.	%	No.	%	No.	%	No.	%				
PYP ¹	90	18.9	118	24.8	43	9	222	46.8	1	.2	474	96	39	52
MYP ²	410	17.2	321	13.5	398	16.7	1242	52.2	5	1	2376	454	195	277
DP ³	55	10.2	138	25.6	32	5.9	312	57.9	1	.2	538	13	9	34

¹ PYP—Schoolwide program at College Gardens Elementary School

² MYP—Grade 6 at Chevy Chase and North Chevy Chase elementary schools, Grades 6-8 at Westland and Julius West middle schools, and Grades 9 and 10 at Richard Montgomery High School

³ DP—Classes of 2005 and 2006 at Richard Montgomery (countywide model), Bethesda-Chevy Chase, and Springbrook high schools, and Class of 2006 at Einstein and Watkins Mill high schools

Cost

During the three years in which a school prepares to file its application and seek authorization, MCPS provides funds for IB teacher training; vertical and horizontal articulation; development of curriculum and assessment; IB publications, such as content guides, appropriate resources, and materials; IB-approved mentors; and site team evaluators. Schools wishing to offer an IB program must meet the organization's academic standards and are required to pay application fees and annual dues. In addition, Diploma candidates and MYP certificate candidates pay their own registration and external assessment fees. In 1999, MCPS discontinued paying per capita fees for RMHS Diploma candidates and has not paid any assessment fees as other programs have come on-line. However, scholarship money has continued to be available at parent request.

Schools are required to pay an additional \$3,500 evaluation fee every five years after initial authorization. These funds support an IBO site team visit to assess the integrity of implementation and to make recommendations for taking the program to the next level of development.

Curriculum, Instruction, and Professional Development

The Diploma Program

IBO's educational aims are embodied in the structure and content of each of its three programs. Subjects are studied concurrently, and students are exposed to both the humanities and the sciences, providing them with a broad liberal arts base. The Diploma Program spans Grades 11 and 12. Potential Diploma candidates in Grades 9 and 10 typically follow a Pre-IB curriculum comprised of Honors level, designated MYP classes, and/or Advanced Placement classes. These classes are intended to prepare students for the rigorous instruction and critical thinking required in the IB courses. Once in Grade 11, Diploma candidates are required to select one subject from each of six major content areas. At least three but not more than four content areas are taken at

the higher level and represent 240 teaching hours. Other courses are taken at the standard level and represent 150 teaching hours.

By arranging their work in this way, students are able to explore some subjects in depth and some more broadly over the two-year period. Science-oriented students are challenged to learn a second language such as Spanish, French, or Chinese, and linguistically-oriented students become familiar with laboratory processes. Thus, while balance is maintained and IB requirements are met, there is still flexibility that allows students to pursue personal interests and to meet university admission standards.

The Diploma Program features three components that strengthen the liberal arts curriculum. Theory of Knowledge (TOK) is a required interdisciplinary course that stimulates students' reflection about the knowledge and experience gained both inside and outside the classroom. The course develops a coherent approach to learning. It challenges students to question knowledge bases, to identify subjective and ideological biases, and to develop a personal philosophy and defend it based on rational argument.

Creativity, Action and Service, known as CAS, represents a second component of the curriculum. This experiential requirement underscores the importance of life outside the world of scholarship and offers balance to students' academic pursuits. The IBO goal of educating the whole child comes alive through CAS as students participate in sports, theater, and community service events. (See Attachment C.)

Diploma candidates are required to do original research on a topic of interest and produce a 4000-word Extended Essay. This investigation engages students in the kind of research and writing skills expected at the university level and enables them to pursue an area of personal passion using critical and analytical skills developed in the program.

The grading system used by the IBO is criterion-referenced. Each student's performance is measured against well-defined levels of achievement consistent from one examination to the next. Student achievement reflects attainment of knowledge and skills relative to set standards applied equally to all Diploma schools worldwide. Students' achievement levels are monitored by their teachers (internal assessment) and by examiners around the world (external assessment). This process gives authenticity to a world-class education as described in the IBO literature.

Each examined subject is graded on a scale of 1 (minimum) to 7 (maximum). The award of the diploma requires students to earn a minimum of 24 points on six examinations and to achieve satisfactory completion of the TOK, CAS, and the Extended Essay requirements. All students are encouraged and supported to engage in and complete the entire program.

Upon entering Grades 11 and 12, non-Diploma candidates at B-CC, Einstein, Springbrook, and Watkins Mill high schools may participate as Certificate candidates, taking IB courses in their areas of strength. While they have access to all IB classes, they do not take TOK or CAS and do

not complete an Extended Essay. Students who complete an IB course and successfully pass the year-end IB examination are awarded an IB Certificate.

The Middle Years Program

In the MYP, Grades 6–10, the same concurrent study of content occurs as in the Diploma Program, with students receiving instruction in both humanities and sciences. Underlying their traditional studies is a unique framework, known as the Areas of Interaction, which immerses students in the acquisition of higher-level thinking skills, international understanding, and responsible citizenship.

Students successfully completing the five-year program receive a Certificate of Achievement documenting their knowledge and skills measured against a set of international performance standards. The certificate also reflects the students' completion of a research-based Personal Project on a subject of interest. This project may result in an essay, a video, a performance, or an artistic representation, and includes a self-reflective written component.

The Primary Years Program

The PYP developed for Grades pre-K–5 is based on a framework by which young students construct meaning through inquiry. Traditional academic subjects are taught, but the PYP emphasizes the interrelatedness of that knowledge and skills through a trans-disciplinary program of inquiry. PYP also addresses the students' social, physical, and cultural needs. To strengthen PYP's international focus, IBO recommends the introduction of a second language beginning at age eight. The second language at CGES is Spanish, and students in kindergarten and Grades 4 and 5 are receiving second language instruction this year.

Professional Development

The application and authorization processes provide opportunities for professional development. To be authorized by the IBO, schools at all three levels complete a multi-year application process that includes intense self-study, analysis of resources, and curriculum development in alignment with IBO frameworks. The application must contain evidence of Board of Education support and long-term budget forecasts. During the process, teachers receive extensive training and develop detailed course outlines. Staff develops these outlines using MCPS curriculum and incorporating it into the appropriate IB framework; this is invaluable because staff must examine the MCPS curriculum and their expectations for students against high IB standards. Teachers also must design and administer formative assessments, again against IB standards, and analyze the results against IB rubrics specific to each content area.

Not only must IBO approve course outlines, but also it determines whether or not a school is prepared for authorization based on recommendations from a visiting team of experienced IB

practitioners. Only schools authorized by the IBO are eligible to teach its curriculum, to use its methodologies, and to register candidates for Diplomas or Certificates.

Once a school is authorized, staff has access to IBO-sponsored teacher training workshops; 3000 educational resources; subject area experts; discussion sessions in real time with teachers in IB schools worldwide; and a subscription-only service, IBO's online curriculum center. Additionally, IBO organizes regional, national, and international conferences. IB school staff share experiences and ideas and broaden their perspectives to analyze what works well in their program and what they can do to improve its educational impact.

IBO-sponsored conferences are offered for all levels of professionals from those new to IB to those with experience who wish to refine and extend their skills and knowledge. Teachers, principals, and coordinators in various authorized IBO programs have the opportunity to become mentors, examiners, site team visitors, and conference session instructors. Currently, in MCPS, two MYP coordinators and one principal have been accredited by IBO and already have served on teams visiting prospective MYP schools in two states. Diploma teachers from RMHS and SHS also work as examiners, mentors, and instructors at conferences, within their own buildings, and for prospective and newly-authorized schools. The IBO sends professional evaluators to visit authorized schools every five years to review delivery and effectiveness of the program and make recommendations for improvement.

Professional conversations about curriculum alignment and articulation, as well as discussions in team and departmental meetings have enhanced MCPS teachers' abilities to refine their skills and to integrate subject matter. With greater focus on instructional issues, strategies, assessment, and ways to engage all learners, conversations have facilitated expansion of the programs for broad cross-sections of students. Because Diploma and MYP student work is internally and externally moderated, teachers demonstrate a strong commitment to support the success and achievement of all students who choose to enter the program—those with special needs, those who may struggle initially, and those who are highly capable.

Benefits of International Baccalaureate Programs for MCPS

For Students

IB programs, with their emphasis on critical and analytical thinking, clearly provide students intellectual challenge. They require students to develop time management and study skills to meet the demands of a comprehensive curriculum. Students gain experience in writing extended essays, taking essay examinations, and delivering oral commentaries that demonstrate their ability to synthesize information in a meaningful way. To accommodate the needs and interests of their Diploma students, Richard Montgomery, Springbrook and B-CC high schools have added such advanced course offerings as IB Theater and IB Visual Arts. Watkins Mill High School is investigating the addition of Environmental Science in 2007. For the MYP, JWMS

created a community service class in its arts rotation. Just this year, WMS added Italian to its foreign language offerings.

For Professional Staff

The training provided to Diploma, Middle Years, and Primary Years teachers impacts staff expectations and influences student performance schoolwide. An IB program creates a high-level learning environment in which both teachers and students display a serious commitment to scholarship and academic success. Because all IB-trained teachers may teach IB and non-IB classes in each of the five Diploma schools, all of them use strategies and methodologies with non-Diploma students as well.

Vertical and horizontal planning in curriculum and conversations around instruction are additional professional benefits. Teachers' focus on standards, essential learnings, interdisciplinary connections, and global implications enhances the depth of discussions among teachers. It also encourages serious consideration about what students need to know and be able to do in order to be successful as they progress through each grade of a particular program. Because the IBO revises content syllabi every five years, teachers return for training regularly to learn about changes and the next level of development required.

Benefits of Whole School Implementation

Whole school programs must concentrate efforts on differentiating instruction to serve all levels of learners. Training provided by staff from the Division of Enriched and Innovative Instruction (EII), IB, MYP, and PYP program coordinators, school-based staff development teachers, and outside consultants support these efforts. For struggling learners or learners with special needs, classes are in place during and after school. Peer tutoring is available to any student seeking help during lunch most days of the week, and study groups at the high school level are becoming increasingly popular with Grade 11 students. Whole school Diploma Programs invite non-Diploma candidates with motivation and interest to access IB-level courses, and these students may earn a certificate indicating successful completion of the particular courses. Summer enrichment workshops funded by EII offer rising eleventh graders the opportunity to strengthen skills in mathematics, English, and foreign language. Each of the whole school programs has served to broaden MCPS' definition of what an "IB" student looks like as an increasing variety of students are successful.

Review of Current MCPS Data

Bethesda-Chevy Chase High School

B-CC High School offers an open enrollment program available to full IB Diploma and IB Certificate students. Currently, 166 students in Grades 11 and 12 participate in the Diploma program. An additional 179 non-Diploma Program candidates access IB-level courses.

Diploma Candidates	2002	2003	2004	2005
African American	1	2	0	6
Asian American	2	1	3	4
Hispanic	3	4	2	4
White	34	30	40	64
Total	40	43	45	78
Female	19	19	28	43
Male	21	18	17	35
Total	40	43	45	78

Albert Einstein High School

In its first year of implementation, the IB Diploma Program at Einstein High School has 50 students enrolled in Grade 11 IB courses. As part of the Downcounty Consortium, rising Grade 9 students have the choice to select a program as well as a school.

Diploma Candidates Class of 2006	
African American	15
Asian American	10
Hispanic	10
White	15
Total	50

Richard Montgomery High School

IB enrollment at RMHS has remained fairly steady since 2002. Enrollment is expected to increase as the MYP continues to grow potential Diploma candidates for the program in 2006 by an additional 25 students.

Diploma Candidates	2002	2003	2004	2005
African American	5	4	6	4
Asian American	20	19	33	21
Hispanic	1	6	1	2
White	63	58	60	59
Total	89	87	100	86
Female	50	51	67	54
Male	39	36	33	32
Total	89	87	100	86

Springbrook High School

Springbrook High School has maintained a steady enrollment over the past four years and shown an increase in the number of Hispanic and African American students accessing the Diploma Program.

Diploma Candidates	2002	2003	2004	2005
African American	9	6	8	12
Asian American	18	17	15	19
Hispanic	0	2	1	3
White	18	20	22	12
Total	45	45	46	46
Female	24	19	26	25
Male	21	26	20	21
Total	45	45	46	46

Watkins Mill High School

Watkins Mill High School will graduate its first Diploma class in spring 2006, and currently has 34 potential Diploma candidates in Grade 11. In addition, 53 non-Diploma students access IB-level courses.

Diploma Candidates for Class of 2006	
African American	6
Asian American	12
Hispanic	5
White	11
Total	34
Female	21
Male	13
Total	34

Parent/Community Involvement

Parent involvement has been and continues to be an essential component for the success of all of the IB programs. Through steering groups, advisory groups, PTA meetings, newsletters, parent information nights, and school Web sites, parents participate in implementation discussions and provide feedback about how to maintain the success or address the challenges in each program. Parents serve as program advocates through their involvement in local school PTAs and county MCCPTA meetings. Local businesses and organizations also are involved with Diploma and Middle Years students who are required to perform community service.

Parents recognize the benefits of the sociocultural experiences, group activities, and rigorous courses on post-secondary choices their students will make. In open enrollment programs, parents become the important catalyst for encouraging their children to seek out these challenging programs. Informed parents give their children the confidence and support they need to see themselves as successful IB students.

Program Monitoring

Authorized schools are evaluated every five years by a team of experienced IBO educators. The team reviews the delivery and integrity of the program and makes recommendations for improvement or adjustments to meet IBO standards. Moderation of student assessments by outside examiners ensures that a common international standard is applied equally to students worldwide.

Informal monitoring occurs through regular walk-throughs by staff from the Division of EII and local program coordinators, coordinator meetings, and Mid Atlantic Regional Coalition (MARC) meetings that occur bi-monthly, pulling together local Diploma, Middle Years, and Primary Years coordinators from Maryland, Virginia, Delaware, Pennsylvania, and the District of Columbia. School-based team and department meetings occur regularly to discuss the progress of students, level of curriculum implementation, and instructional strategies. By emphasizing formative assessments within each classroom, teachers are able to analyze performance data and monitor not only student performance but also their own ability to deliver the high-level instruction required of an IB teacher.

Recommendations

IB Programs K–12 support the mission and goals of the MCPS strategic plan by providing a rigorous educational program to students throughout the county and offering teachers the opportunity to refine and enhance their professional skills. To strengthen their impact on achievement of all students of all racial and ethnic groups, MCPS is doing the following:

- Developing an outreach program to inform parents of underserved students about college requirements and the role that IB enrollment can play in preparing their children for postsecondary education. Such outreach has the potential of broadening recruitment.
- Continuing to identify, purchase, and develop multicultural materials as the number of traditionally-underserved students accessing IB programs increases.
- Developing a systematic plan for expanded dissemination of best practices and lessons learned from IB programs and initiatives at all levels.
- Continuing to strengthen elementary and middle school instructional experiences to prepare more students for rigorous work in high school. Engaging students in critical thinking, problem solving, authentic learning, and research can contribute to this preparation.

Conclusion

The IB Diploma, Middle Years, and Primary Years are programs of opportunity. They provide students with opportunities to learn and refine academic skills. They provide teachers opportunities to guide students through challenging curricula, and they provide opportunities for policy makers to ensure that rigorous and challenging instruction is equitably distributed so more students exiting high school are prepared to succeed in college. MCPS has five Diploma Programs, two whole school Middle Years Programs with two more in the authorization process and a fourth in the investigative stage, and one evolving whole school Primary Years Program, all of which are providing 3,778 students opportunities to access high level instruction and to achieve high levels of performance that measure up to world-class standards. With the inclusion of the three additional middle school programs, the numbers of students accessing IB programming will exceed 6,100.

At the table for today's discussion are Mr. Dale Fulton, associate superintendent for curriculum and instructional programs; Mr. Mark Kelsch, community superintendent, Office of School Performance; Mrs. Virginia Tucker, director of enriched and innovative instruction; Ms. Kim Boldon, coordinator of Middle Years Program at Richard Montgomery High School; Mr. James Fernandez, principal, Albert Einstein High School; and Dr. Sherry Liebes, principal, College Gardens Elementary School.

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Attachments

IBO Programs: A K–12 Continuum

Primary Years: Six Organizing Themes, Structured Inquiry, Student Profile Exhibition	Middle Years: Areas of Interaction Personal Project CERTIFICATE	International Baccalaureate: Theory of Knowledge (TOK), Creativity, Activity, and Service (CAS), Extended Essay DIPLOMA
Language	Language A	Language A
	Language B	Second Language
Social Studies	Humanities	Individual and Society
Science and Technology	Sciences	Experimental Sciences
Mathematics	Mathematics	Mathematics and Computer Science
	Technology Competencies and Design Technologies	
Personal, Social, Physical Education	Physical Education	
Arts	Arts: visual and performing	The Arts

A Comparison of the International Baccalaureate Diploma and Advanced Placement Programs

IB

- International Standard of excellence
- Comprehensive curriculum of college-level work
- IB courses and exams are recognized by both US and international colleges and universities
- Largely essay exam can be retaken twice
- Emphasis on content breadth and depth
- Clear course requirements
- Exams given in May and done in more than one sitting on more than one day
- Scores range from 1–7 with scores of 5 or better usually earning college credit
- Exams show strengths of students who are academically talented and highly motivated
- (*)Uniqueness of Theory of Knowledge (TOK), Creativity, Activity, and Services (CAS), and Extended Essay requirements
- Journaling plays a large role
- No personal narratives required for Diploma candidates
- Students can access IB course only in authorized IB schools
- Student scores include both teacher and external assessments that are graded by educators world-wide
- Oral assessments in Languages A and B
- Policies determined by international educators

AP

- National standard of excellence
- College-level work
- AP classes and exams are generally recognized by US colleges and universities
- Largely multiple choice with essay component
- Emphasis on content depth in one subject
- Exams given in May over several days
- Scores range from 1–5 with 3 or better often earning college credit
- Exams show content knowledge of academically-talented students in one subject
- Larger range of course offerings
- Students do not have to be enrolled in an authorized school to access Advanced Placement classes
- Exams are graded externally through Educational Testing Service
- Oral exams are given in foreign language
- Policies determined by national educators

*Exams based on broad general understanding of concepts and fundamental themes.

An International Baccalaureate Glossary

The IB program – A worldwide program for the last two years of high school which is mainly linked by uniform teacher training and a common assessment system in which exams and other work are graded internationally. Intended for students who are academically motivated. IB is a non-profit organization, with offices in Geneva, Switzerland; Cardiff, Wales; and New York.

The pre-IB program – A course of accelerated studies for Grade 9 and 10 students which is designed by the individual school to prepare students for IB Grades 11 and 12. Beyond expecting that the school will undertake this preparation, the IB has no particular requirements or assessments for ninth and tenth graders.

Diploma – The name of a document issued by IB after a student has completed and passed these requirements: six exams taken in five or six different academic areas, three at the Higher Level and three at the Standard Level; an Extended Essay; 150 hours of creativity, activity and services (CAS); and completion of Theory of Knowledge (TOK) course. The Diploma is the highest level of IB achievement.

Higher Level (HL) – An IB course offered over two years; exams only available to high school seniors. HL credit with good grades can often be submitted to colleges and universities for transfer credit, e.g., as equivalent of first year standing.

Standard Level (SL) – An IB course that must have a minimum of 150 hours of instruction. Standard Level exams are usually a little shorter or less conceptual or analytical than Higher Level exams, but the standard level is generally still more difficult in content and skills than Manitoba S4 or Grade 12. Occasionally, SL grades can be submitted to colleges and universities for credit.

Extended Essay – A 4000-word independent research paper due in the senior year, chosen and undertaken by the student in one of over 20 IB disciplines (foreign language, literature, history, physics, biology, etc.). The student chooses a school-based mentor for guidance in research and writing. The Extended Essay does not earn credit in any class. The Extended Essay is sent elsewhere in the world to be graded. Form is emphasized as well as content.

CAS – Acronym standing for creativity, activity, and service. CAS is the non-school portion of the requirements for the Diploma in which 150 hours of community service and activity in the arts and athletics is expected. It is hoped that students will involve themselves deeply in a single community service rather than piece together bits of many. Community service hours should comprise more than one-third of the 150 hours required.

Theory of Knowledge (TOK) – A course required of Diploma candidates in every school in the world, in which the concept of knowledge, its worth, veracity, and forms is considered.

Certificate – The name of the document which a student earns after completing any IB class along with the attendant work and exam. Exams and course work for both Diploma and Certificate candidates are the same in any given subject and level.

Scores – Students earn a single score ranging from “1–7” for each IB subject exam taken. The scores indicate a level of achievement compared with students around the world undergoing the same requirements. Diploma candidates must accumulate a minimum of 24 points, out of a possible 45 points, to earn the Diploma. A “1” is low; a “7” is high, indicating excellent or exceptional work.

Internal Assessment – Individual student evaluation done by the teacher of a subject on a particular piece of work or the accumulation of work (depends on the subject) and communicated to the IB Curriculum and Assessment office (IBCA). Internal assessments are criteria-based. Samples of candidates’ work, which represent a range of performance, low to high, are also submitted to markers. Oral exams, portfolios, lab books, and essays all comprise parts of internal assessment.

Descriptors – Course-specific expectations or criteria for performance evaluation by the teacher. For example in music: a) creativity, originality, and imagination; b) technical competence and control of elements; c) interpretational aspects of style; d) aesthetic content and presentation; e) ability to assess own growth and development—or in History: a) historical explanation and understanding; and b) analysis and evaluation of sources and evidence. Such descriptors exist in all subjects to help teachers grade internal assessment assignments.

Moderation – Process by which the internal assessment (by the teacher) is evaluated by an external assessor appointed by IBCA. After a teacher submits internal assessment samples, representing high to low grades, IBCA will compare that teacher and group of students with others, and re-assign all the teacher’s candidates higher or lower grades, or keep them where they are. The purpose of moderation is to see how closely the school matches the external standard, and to determine an accurate evaluation of the student’s work. This is the process whereby the IB Organization maintains high standards and uniformity throughout the world.

Orals (Formal Commentary) – In English and second languages, such as French, an oral presentation by each student is tape-recorded for internal assessment. A range of resulting tapes is sent by the teacher(s) for moderation of all scores.