

State of Mathematics PreK-12

What is the Pre K- 12 Mathematics Program?

- Curriculum and Assessments that are aligned to the Voluntary State Curriculum and Maryland Assessment Program
 - PreK-12 Curriculum
 - PreK-Grade 5
 - BCPS Curriculum Guides
 - MacMillian McGraw Hill, current textbook program
 - Unit Summative Assessments
 - Grades 6-12
 - Rigorous Course Sequence with BCPS Curriculum Guides
 - Unit Summative Assessments and Benchmarks

Maryland Standards

MSDE Assessment Program

Voluntary State Curriculum/Core Learning Goals

- MSA: Grades 3-8, ~~Geometry~~
- HSA: Algebra and Data Analysis
- New Graduation Requirements for 2009 and beyond – all students need to pass HSA's

Baltimore County Standards

- High-quality, rigorous mathematics for all students
 - Elimination of low level coursework
 - Preparation for higher level coursework beyond graduation
 - Minimum expectation of Algebra I, Geometry and Algebra 2 for graduation
 - Expectation that all students in all sub-groups will meet or exceed MSA standards.

How are we doing? MSA

- 1.1 All diploma-bound students in grades 3-8 and students enrolled in English 10 and Geometry will meet or exceed the Maryland School Assessment (MSA) Standards.

How are we doing? MSA

Percent Scoring Proficient or Advanced		
Grade	2004	2005
3	73.1	78.2
4	72.0	77.3
5	61.6	69.9
6	50.8	58.6
7	52.2	57.9
8	47.8	52.6
Geometry	42.9	40.7

How are we doing? Alt-MSA

Percent Scoring Proficient or Advanced		
Grade	2004	2005
3	92.0	84.3
4	86.4	83.8
5	89.5	83.5
6	88.5	85.5
7	90.6	85.0
8	84.8	83.7
10	75.4	78.6

How are we doing? HSA

- 1.10 All students will pass the Algebra I Maryland High School Assessment (HSA) by the end of grade 9.
 - HSA Algebra/Data Analysis in 2004-2005:
 - 50% of Baltimore County students passed.
 - 82% of middle school students passed.
 - 25% of high school students passed.
 - 11% of special education students passed.

2004 Pass Rate

51%

2005 Pass Rate

50%

What are we doing to support all students to pass the Algebra HSA?

Proactive Measures

- Support algebra concepts introduced in Elementary Grades
- Continue to review alignment of Middle school program to VSC
- Implement the revised Algebra I program
 - Implementation and pacing
 - New courses, *Algebra and Data Analysis* and *Algebraic Functions*
 - Professional dialogue and collaboration
 - Sustained, high quality professional development

What are we doing to support all students to pass the Algebra HSA?

- Administer Countywide Benchmarks, School Based Summative Assessments
 - Analyze data and provide intervention
- Discuss grading practices
- Provide immediate, intense assistance for identified teachers
- Consider thoughtful student placement
- Monitor assistance program

What if the students do not pass the HSA on the first try?

Fall 2005 Recommendations

1. Student Identification
2. Parent Contact
3. Algebra Intervention Strategies
4. Implement Strategy
5. Student Retakes Algebra HSA

Curriculum and Assessment Initiatives

- Review of BCPS Curriculum Alignment to VSC (ongoing)
- Algebra I Textbook Adoption and Curriculum (FY 06)
- New Algebra Courses (FY 06)
 - Algebra/Data Analysis Adapted
 - Algebraic Functions Adapted
- New Professional Development Program: *Engaging the Millennial Mathematician* (FY06)

Curriculum and Assessment Initiatives

- Focus group for Middle School special education (FY06)
- Grade 9 STEM Pilot (FY06)
- Middle School Program Review (FY 06)
- Pre-Calculus Courses Review (FY06)
- Proposed K-5 Text Adoption (FY 07)
- Revision of K-5 Elementary Mathematics Program (FY07)
- College Readiness Math course
(pilot FY07)

Challenges

- Ensuring that all students pass the HSA Algebra/Data Analysis – a graduation requirement for all diploma bound students
- Ensuring that all students are proficient or advanced who participate in MSA
- Ensuring that all students are proficient or advanced who participate in Alt-MSA
- Ensuring that all students graduate prepared for many opportunities beyond high school

What does this mean for the mathematics program in BCPS?

- Mathematics achievement for ALL students
- Necessary support provided for ALL students
- Content knowledge and pedagogy for ALL teachers
- Sustained professional development
- Rigorous coursework for ALL students