

**ELEMENTARY MATHEMATICS**  
**Howard County Public School System**  
**Department of School Improvement and Curricular Programs**  
**Guide for Instructional Level Placement**

A mathematics instructional level is determined by a student’s performance. Performance should equally measure concepts, procedures, and application of mathematics.

**Purpose:** Provide guidance for determining students’ instructional level in mathematics in grades 1-5.

**Above-Grade Level Indicators** Evidence is three or more indicators identified below.

<b>Indicator</b>	<b>Performance</b>
Measure of Academic Progress-Mathematics (MAP-M)	Meets or exceeds HCPSS Performance Benchmarks (see Chart A)
Number Readiness Assessment	Indicate readiness for acceleration
Teacher-selected Assessments	Indicate readiness for acceleration
Mathematics Learner Behaviors (Attachment A)	Indicate that more than half of the behaviors are frequently evident with on grade-level appropriate tasks
PARCC	Performance is Level 4 or 5
CogAT QN Score*	Is 80 or greater (grade 3) Is 83 or greater (grade 5)

**Below-Grade Level Indicators** Evidence is three or more indicators identified below.

<b>Indicator</b>	<b>Performance</b>
Measure of Academic Progress-Mathematics (MAP-M)	Is less than the 15th percentile (see Chart B)
Number Readiness Assessment	Indicate insufficient mastery of current grade level prerequisites
Teacher-selected Assessments	Indicate considerable gaps in concept prerequisites
Mathematics Learner Behaviors (Attachment A)	Are not evident more than half of the time on-grade level appropriate tasks
PARCC	Performance is level 1.

**Chart A - HCPSS Mathematics Performance Benchmarks for MAP-M RIT Scores**

Grade	Beginning-of-Year Benchmark	Mid-Year Benchmark	End-of-Year Benchmark
1	169-176	179-185	186-193
2	185-192	193-199	197-204
3	199-205	205-212	209-216
4	210-217	215-221	219-226
5	220-227	225-232	228-234

**Chart B – MAP-M 15<sup>th</sup> Percentile RIT Scores**

Grade	Beginning-of-Year	Mid-Year	End-of-Year
1	149	160	167
2	163	173	178
3	177	184	189
4	188	194	198
5	196	201	205

**Placement Adjustments:** Student placement should be adjusted when evidence indicates it is appropriate regardless of time of year. Adjustments made after the 2<sup>nd</sup> quarter should have specific structures provided to support the new placement. Specific structures may include moving a student to a new mathematics class with differentiated support, providing appropriate small group instruction in current mathematics class, or scheduling/providing additional mathematics instructional time for the student. When making adjustments, specific structures should be identified and provided to students to support success in the new placement.

\* CogAT qualifying scores are above 88 in grade 3 and 92 in grade 5.

# Mathematics Learning Behaviors

Attachment A

In mathematics class, the student demonstrates the behaviors below.

		F	O	N
SMP 1	Explains the meaning of the problem.			
	Engages in problem solving (develops, carries out, and refines a plan).			
	Persists when solving problems.			
	Considers if answers makes sense and adjusts if needed.			
SMP 2	Represents a problem with equations.			
	Uses numbers flexibly.			
	Examines the reasonableness of his or her answers/calculations.			
SMP 3	Justifies solutions.			
	Listens to the reasoning of others.			
	Compares and asks questions about ideas			
SMP 4	Uses representations for concepts and problems			
	Applies equations where appropriate.			
SMP 5	Selects appropriate tools.			
	Uses tools accurately.			
SMP 6	Calculates accurately and efficiently.			
	Uses mathematics vocabulary.			
SMP 7	Applies prior knowledge to new problems.			
	Looks for relationships and patterns.			
SMP 8	Uses patterns for efficiency.			

Frequently

Occasionally

Not at this time

## Standards for Mathematical Practice (SMP)

- SMP 1: Makes sense of problems and perseveres when solving them
- SMP 2: Reasons abstractly and quantitatively
- SMP 3: Constructs viable arguments and critiques the reasoning of others
- SMP 4: Models with mathematics
- SMP 5: Use appropriate tools strategically
- SMP 6: Attend to precision
- SMP 7: Look for and make use of structure
- SMP 8: Look for and express regularity in repeated reasoning.

**MIDDLE SCHOOL MATHEMATICS**  
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**Implementation Guidelines**

- A student in a GT class is marked above-grade-level <sup>1</sup>.
- A student placed in Grade 6 Mathematics 7, Grade 7 Mathematics 8, or Grade 8 Algebra I classes earning an A, B, or C should be designated as **above-grade level** <sup>2</sup>.
- Students placed in Grade 6 Mathematics 6, Grade 7 Mathematics 7, or Grade 8 Mathematics 8 classes earning an A, B, or C should be designated as **on-grade-level** <sup>3</sup>.
- For students participating in mathematics seminar, both the seminar teacher and the mathematics teacher should collaborate to determine the designation; taking into consideration performance on MAP. (Beginning of the year, mid-year, and end-of-year)

**Policy 8010 – For Reference:**

<sup>1,2</sup> **ABOVE GRADE LEVEL** - The student is in a mathematics class that is one year or more above grade level (Grade 6: Pre-Algebra GT or Mathematics 7; Grade 7: Algebra I G/T or Mathematics 8; Grade 8: Geometry G/T or Algebra I), has met local assessment standards, and/or is earning a C or above in the course.

<sup>3</sup> **ON GRADE LEVEL** - The student is in an on grade level mathematics class (Grade 6: Mathematics 6; Grade 7: Mathematics 7; Grade 8: Mathematics 8), has met local assessment standards, and/or is earning a C or above in the course.

**BELOW GRADE LEVEL** - If the student is earning a D or E in an on grade level mathematics class and has not met two of the following standards:

- Satisfactory or above performance on the MAP assessment - See HCPSS Benchmarks
- Satisfactory or above performance on course assessments
- Demonstrating proficiency on [MD College & Career Ready] standards/objectives