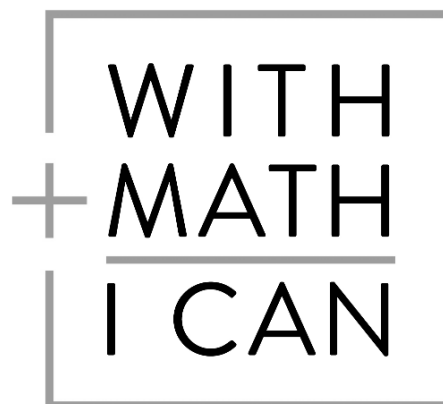
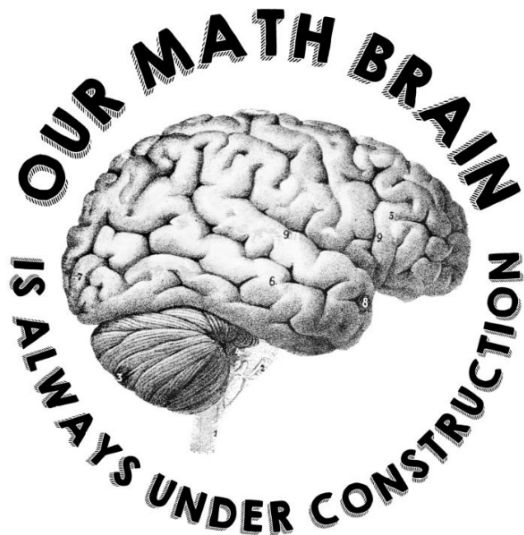


Cabin John Middle School

2016-2017

Mathematics Department



# Montgomery County Public Schools Mathematics Course Pathways

| Elementary   |              |              |              |              |              | Middle       |             |                | High          |                |                   |               |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|----------------|---------------|----------------|-------------------|---------------|
| K            | 1            | 2            | 3            | 4            | 5            | 6            | 7           | 8              | 9             | 10             | 11                | 12            |
| C2.0 Math K* | C2.0 Math 1* | C2.0 Math 2* | C2.0 Math 3* | C2.0 Math 4* | C2.0 Math 5* | C2.0 Math 6* | C2.0 I.M.** | C2.0 Algebra 1 | C2.0 Geometry | C2.0 Algebra 2 | C2.0 Pre-Calculus | AP***         |
|              |              |              |              | C2.0 4/5     | C2.0 5/6     | C2.0 I.M.**  | C2.0 Alg. 1 | C2.0 Geom.     | C2.0 Alg. 2   | C2.0 Pre-Cal.  | AP***             | AP***         |
|              |              |              |              |              |              |              | C2.0 Math 7 | C2.0 Math 8    | C2.0 Alg. 1   | C2.0 Geom.     | C2.0 Alg. 2       | C2.0 Pre-Cal. |

\* Including MCPS enrichment and acceleration opportunities

\*\* Investigations in Math

\*\*\* Advanced Placement Calculus, Advanced Placement Statistics, or other college-level courses

We are working to give all MCPS students  
access to Algebra I in 8th grade.

## Graduation Requirement

- A student must take High School math all 4 years of High School.
- High School Math credits earned in Middle School will count toward the student's GPA but not toward required math credits for graduation.



## PARCC Information

### **Proposed PARCC Algebra 1 cut scores**

2016-2017: 725 (level 3)

2017-2018: 733

2018-2019: 741

2019-2020: 750 (level 4)



PARCC reports results according to five performance levels that delineate the knowledge, skills, and practices students are able to demonstrate:

- Level 1: Did not yet meet expectations
- Level 2: Partially met expectations
- Level 3: Approached expectations
- Level 4: Met expectations
- Level 5: Exceeded expectations

Performance level descriptors (PLDs) indicate what a typical student at each level should be able to demonstrate based on his/her command of grade-level standards. The performance levels at each grade level are written for each of four assessment sub-claims:

- Major content
- Additional and supporting content
- Reasoning
- Modeling

### **\*\*\*Graduation Requirement**

If a student does not pass PARCC, but does pass Algebra, they will go on to Geometry.



## The College Degrees And Skills Employers Most Want In 2015

The NACE survey also asked employers to rate **the skills they most value in new hires**. Companies want candidates who can think critically, solve problems, work in a team, maintain a professional demeanor and demonstrate a strong work ethic. Here is the ranking in order of importance:

| Competency                         | Essential Need Rating* |
|------------------------------------|------------------------|
| Critical Thinking/Problem Solving  | 4.7                    |
| Teamwork                           | 4.6                    |
| Professionalism/Work Ethic         | 4.5                    |
| Oral/Written Communications        | 4.4                    |
| Information Technology Application | 3.9                    |
| Leadership                         | 3.9                    |
| Career Management                  | 3.6                    |

\*Weighted average. Based on a 5-point scale where 1=Not essential, 2=Not very essential; 3=Somewhat essential; 4=Essential; 5=Absolutely essential

<http://www.forbes.com/sites/susanadams/2015/04/15/the-college-degrees-and-skills-employers-most-want-in-2015/#4d98e35e8d56>

## Math Work Group

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In 2008–2009, a representative group of teachers, parents, principals, community members, and central office staff gathered for 18 months to review the MCPS mathematics program.

Their work resulted in a number of recommendations regarding curriculum, acceleration, system achievement targets, and professional development.

Several of the key recommendations included

- adopting the then-in-development Common Core State Standards (CCSS)
- reviewing the impact of the CCSS on the MCPS math program and system targets
- expanding professional development in mathematics
- and eliminating grade-level skipping of mathematics content while continuing practices that challenge students who consistently demonstrate proficiency.

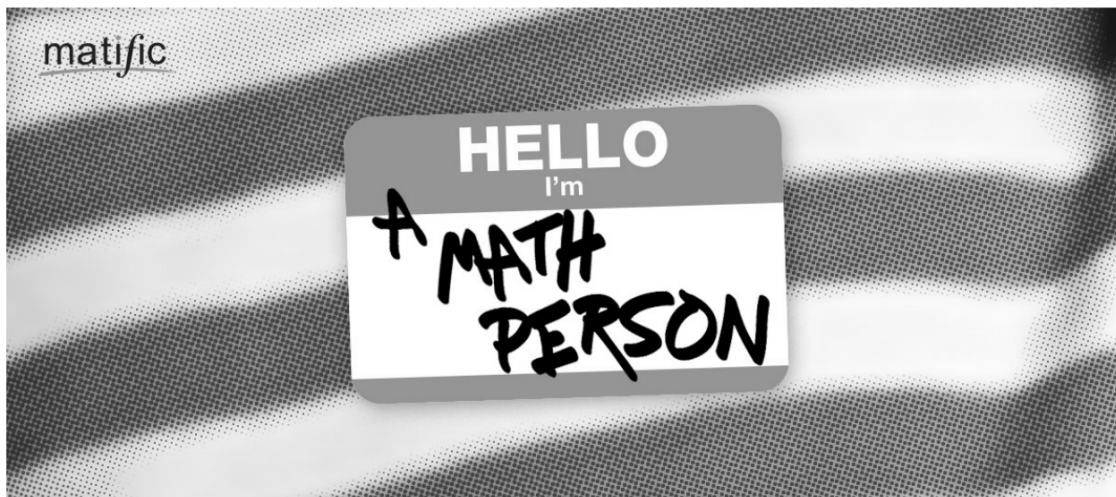
## Changes to Math Instruction: Making Content Accessible to All Students

- Multiple Methods of Solving are Encouraged
- Collaboration, Coupled with Individual Accountability, is Expected
- Flexible Thinking is Encouraged through Integrated Concepts in Instruction



CJMS Percent of Total Enrollment in Algebra 1 by Grade 8  
August 2015 to August 2016

|      | ALL | AA  | AS  | HI  | MU   | WH  | SPED | ESOL | FRMS |
|------|-----|-----|-----|-----|------|-----|------|------|------|
| 2015 | 75% | 23% | 86% | 53% | 86%  | 81% | 10%  | 30%  | 17%  |
| 2016 | 82% | 60% | 89% | 65% | 100% | 85% | 24%  | 46%  | 41%  |





## Access to Rigorous Instruction

If a student does not have access to Algebra I by the end of 8th grade, some options are no longer available to that student:

- Not being eligible to apply to a Magnet Program (even if it's not a mathematics program)
- No access to above grade-level curriculum for your remaining MCPS career
- Limited access to heterogeneous dialogue

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## What are we doing here at Cabin John?

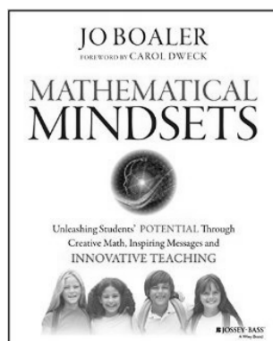
- 2015-2016- Increased the number of 7th grade students enrolled in IM.
- Those students are now in Algebra I in 8th grade.
- To support the students, we offer:
  - Algebra Support at Pride (by invitation)
  - Co-taught Algebra (one period)

What are we doing here at Cabin John Con't?

- 2016-2017- Increased the number of 7th grade students enrolled in IM to be the majority of the school.
- To support the students, we offer:
  - IM Support at Pride (by invitation)
  - Co-taught IM (two periods)
  - Math Support in Resource and Related Studies Classes
  - Math Related Activity Class period 1 designed to review and preview content

“Students are as ready as the experiences they have had, and if students are not ready, they can easily become so with the right experiences, high expectations from others, and a growth mindset.”

~Mathematical Mindsets, p. 8



THANKS A

$1 \times 10^6$