



Middle School Math and Math MCAS Scores

Curriculum and Instruction
Subcommittee Meeting
March 1, 2022



Grades 5 Math Overview

- Operations & Algebraic Thinking
- Number and Operations in Base 10
- Number and Operations - Fractions
- Measurement and Data
- Geometry

[DESE Mathematics Curriculum Framework \(2017\)](#)

Grades 6 Math Overview

- Ratios and Proportional Relationships
- The Number System
- Expressions and Equations
- Geometry
- Statistics and Probability

Grades 7 Math Overview

- Ratios and Proportional Relationships
- The Number System
- Expressions and Equations
- Geometry
- Statistics and Probability

Grades 8 Math Overview

- The Number System
- Expressions and Equations
- Functions
- Geometry
- Statistics and Probability

Standard Math Pathway

7th Grade	8th Grade
<ul style="list-style-type: none"><li data-bbox="98 506 649 645">● 7th grade math standards	<ul style="list-style-type: none"><li data-bbox="987 506 1534 645">● 8th grade math standards
9th grade → Algebra 1	

Compacted Math Pathway

7th Grade	8th Grade
<ul style="list-style-type: none">● All of 7th grade math standards● Half of 8th grade math standards	<ul style="list-style-type: none">● Half of 8th grade math standards● All of Algebra 1 math standards
9th grade → Geometry	

Currently only students taking Compacted Math (Algebra 1) in 8th grade are eligible to take Challenger Geometry.

High School Pathway 1

Grade 9	Grade 10	Grade 11	Grade 12
Algebra 1 (30-35% of students)	Geometry CP	Algebra 2 CP	PreCalculus CP
			Math Electives CP
		Algebra 2 H2	PreCalculus H2
			PreCalculus CP
	Geometry CP Algebra 2 H2	PreCalculus H2	Calculus H
			AP Statistics
			Math Electives CP or H
	Geometry H	Algebra 2 H2	PreCalculus H2
			Math Electives CP or H
		Algebra 2 H1	PreCalculus H1
		PreCalculus H2	

High School Pathway 2

Grade 9	Grade 10	Grade 11	Grade 12
---------	----------	----------	----------

Geometry CP (20-30% of students)	Algebra 2 H2	PreCalculus H2	Calculus H
			Math Electives CP or H
	Algebra 2 CP	PreCalculus CP	AP Statistics
			Math Electives CP or H
		PreCalculus CP	Math Electives CP or H

High School Pathway 3

Grade 9	Grade 10	Grade 11	Grade 12
Geometry H (40-45% of students)	Algebra 2 H2	PreCalculus H2	Calculus H
			AP Statistics
	Math Electives CP or H		
	PreCalculus CP	Math Electives CP or H	
	Algebra 2 H1	PreCalculus H1	AP Calculus AB or BC
			AP Statistics
			Calculus H
		PreCalculus H2	Calculus H
AP Statistics			
Math Electives CP or H			

High School Pathway 4

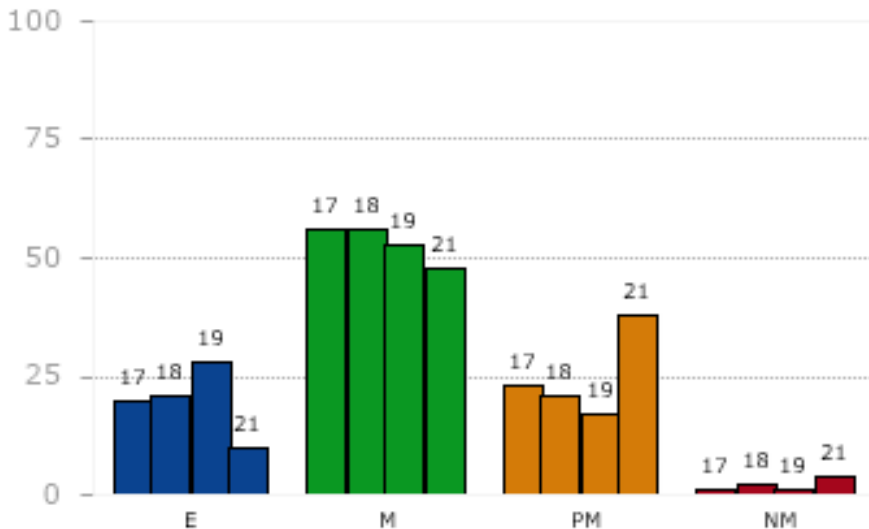
For students who complete Challenger Geometry in Gr. 8

Grade 9	Grade 10	Grade 11	Grade 12
Algebra 2 H2	PreCalculus H2	Calculus H	AP Calculus or AP Stats (if not taken in 11th grade) Math Electives
		AP Statistics	
Math Electives CP or H			
PreCalculus CP	Math Electives CP or H		
Algebra 2 H1	PreCalculus H1	AP Calculus AB or BC	
		AP Statistics	
		Calculus H	
PreCalculus H2	PreCalculus H2	Calculus H	
		AP Statistics	
		Math Electives CP or H	

From the 2022-23 BHS Program of Studies, page 20

Middle School Math MCAS Scores, Grade 5





GRADE 05 - MATHEMATICS
Percentage of Students by Achievement Level



GRADE 05 - MATHEMATICS

ACHIEVEMENT LEVEL

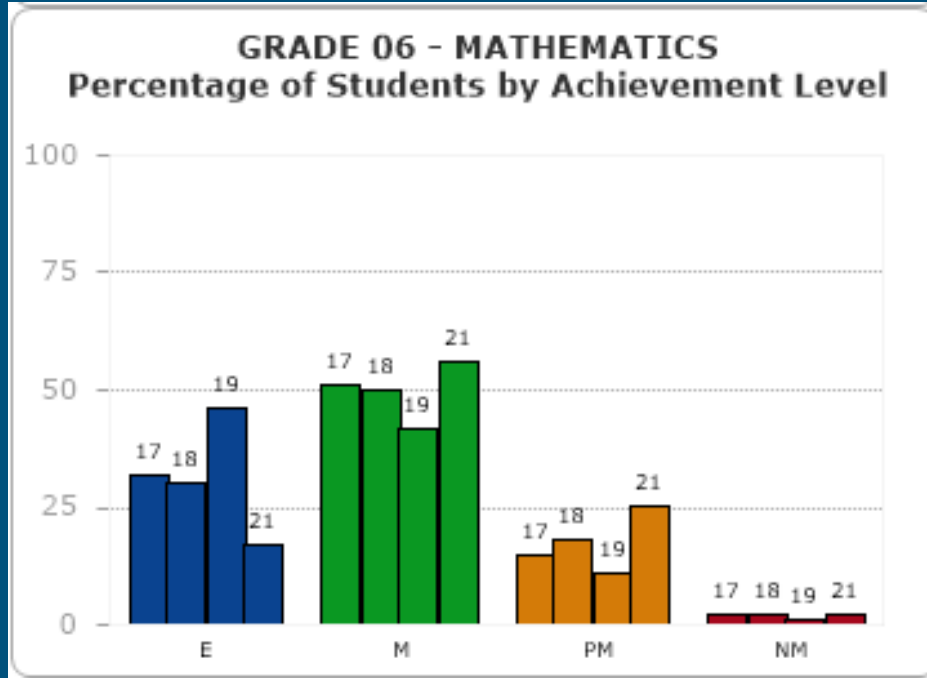
2017 2018 2019 2021





	Exceeding Expectations (E)	20	21	28	10
	Meeting Expectations (M)	56	56	53	48
	Partially Meeting Expectations (PM)	23	21	17	38
	Not Meeting Expectations (NM)	1	2	1	4

2021 Participation Rate = 98%

[Link to Chenery School Profile Assessment Data on DESE website](#)

Middle School Math MCAS Scores, Grade 6



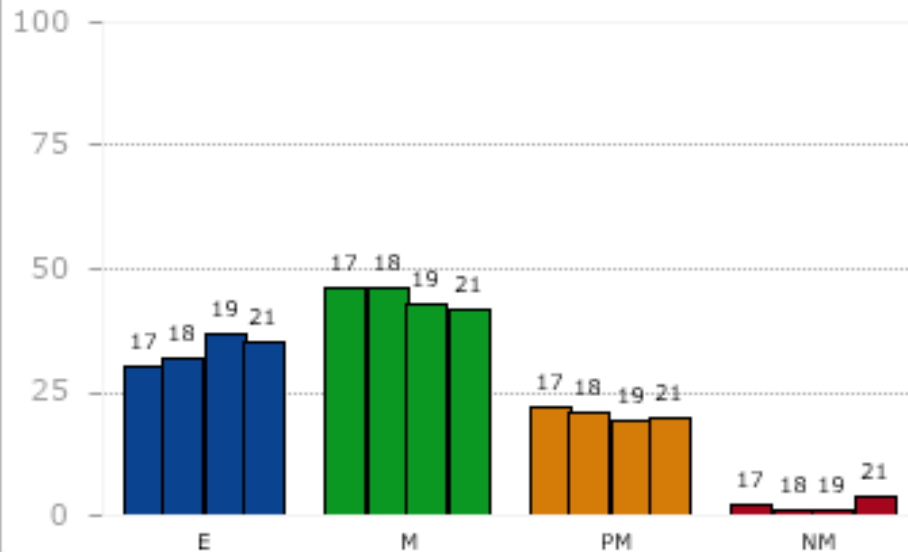
GRADE 06 - MATHEMATICS					
ACHIEVEMENT LEVEL		2017	2018	2019	2021
	Exceeding Expectations (E)	32	30	46	17
	Meeting Expectations (M)	51	50	42	56
	Partially Meeting Expectations (PM)	15	18	11	25
	Not Meeting Expectations (NM)	2	2	1	2

2021 Participation Rate = 99%

Middle School Math MCAS Scores, Grade 7

GRADE 07 - MATHEMATICS

Percentage of Students by Achievement Level



GRADE 07 - MATHEMATICS

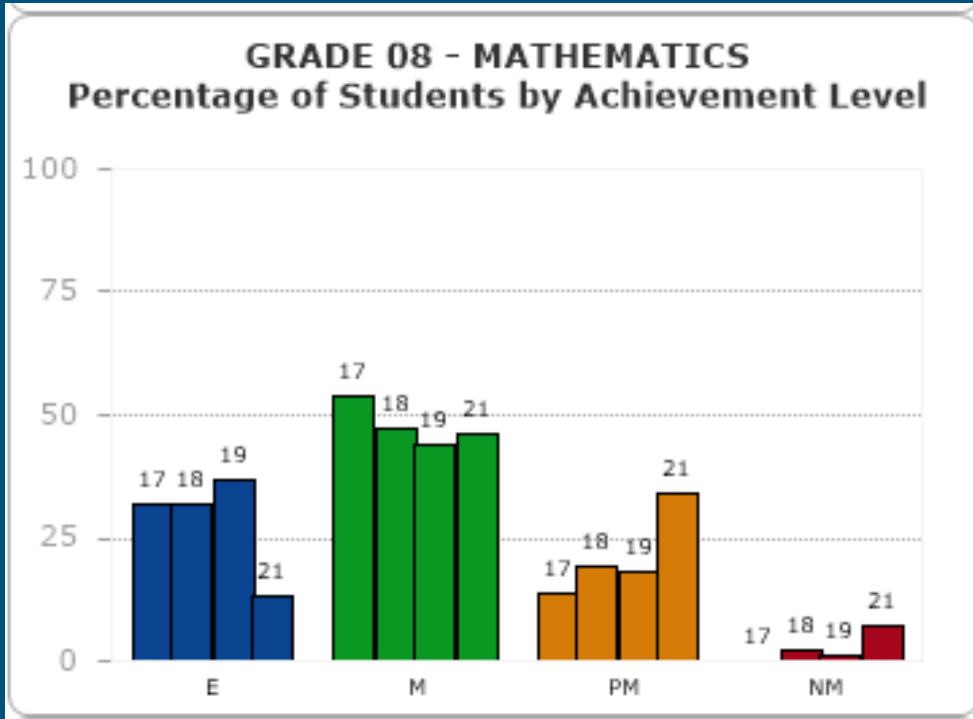
ACHIEVEMENT LEVEL

2017 2018 2019 2021

Exceeding Expectations (E)	30	32	37	35
Meeting Expectations (M)	46	46	43	42
Partially Meeting Expectations (PM)	22	21	19	20
Not Meeting Expectations (NM)	2	1	1	4

2021 Participation Rate = 96%

Middle School Math MCAS Scores, Grade 8



GRADE 08 - MATHEMATICS
ACHIEVEMENT LEVEL

	2017	2018	2019	2021
Exceeding Expectations (E)	32	32	37	13
Meeting Expectations (M)	54	47	44	46
Partially Meeting Expectations (PM)	14	19	18	34
Not Meeting Expectations (NM)	0	2	1	7

2021 Participation Rate = 97%

Current Academic Support Opportunities

1. Varsity Tutors - Online tutoring services
2. Before School Tutoring
3. Math Enrichment class with Math Specialists

Identification of Students in Need of Support

- Spring 2021 MCAS Scores
 - NM (Not Meeting Standard), PM (Partially Meeting Standard)
- Generally not on IEPs since these students get support through special education services.
- Some EL students as identified by Math and EL teachers
- Teacher & Guidance Counselor Input
- Grades and common assessment data

Current Staffing & Student Load

<p>Oliver Ward .6 Math Specialist .4 Challenger Geometry</p>	<p><u>Pull Out</u> Grade 7 8 students (2 sections of 4)</p> <p>Grade 8 14 students (2 sections of 4, 1 section of 6)</p>	<p><u>Push In</u> Grade 6 - Extended Learning Approx 8-10 students on rotating basis</p>	<p>Challenger Geometry Students = 131 8th grade students</p>
<p>Nicole Heffernan 1.0 Math Specialist</p>	<p><u>Pull Out</u> Grade 5 15 students</p> <p>Grade 6 15 students</p>	<p><u>Push In</u> Grade 5 6 sections in a cycle Approx. 5-10</p> <p>Grade 6 6 sections in a cycle Approx. 5-10</p>	<p><u>Push In</u> Grade 7 Everyday 2 EL Students</p> <p><u>Push In</u> Grade 8 3 sections in a cycle Approx. 2-3</p>