

**Kilmer Middle School**  
**Grade 8**  
**Mathematics Curriculum**

# Grade 8 Mathematics Course Options

## Pre-Algebra

- 8<sup>th</sup> grade standards

## Algebra 1

- High school credit course

## Algebra 1 Honors

- High school credit course

## Geometry Honors

- For students who completed Algebra 1 Honors in grade 7
- High school credit course

# Grade 8 Mathematics

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- **Geometry Honors** - This course emphasizes two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve real-life problems.



# VDOE 2023 Mathematics Standards

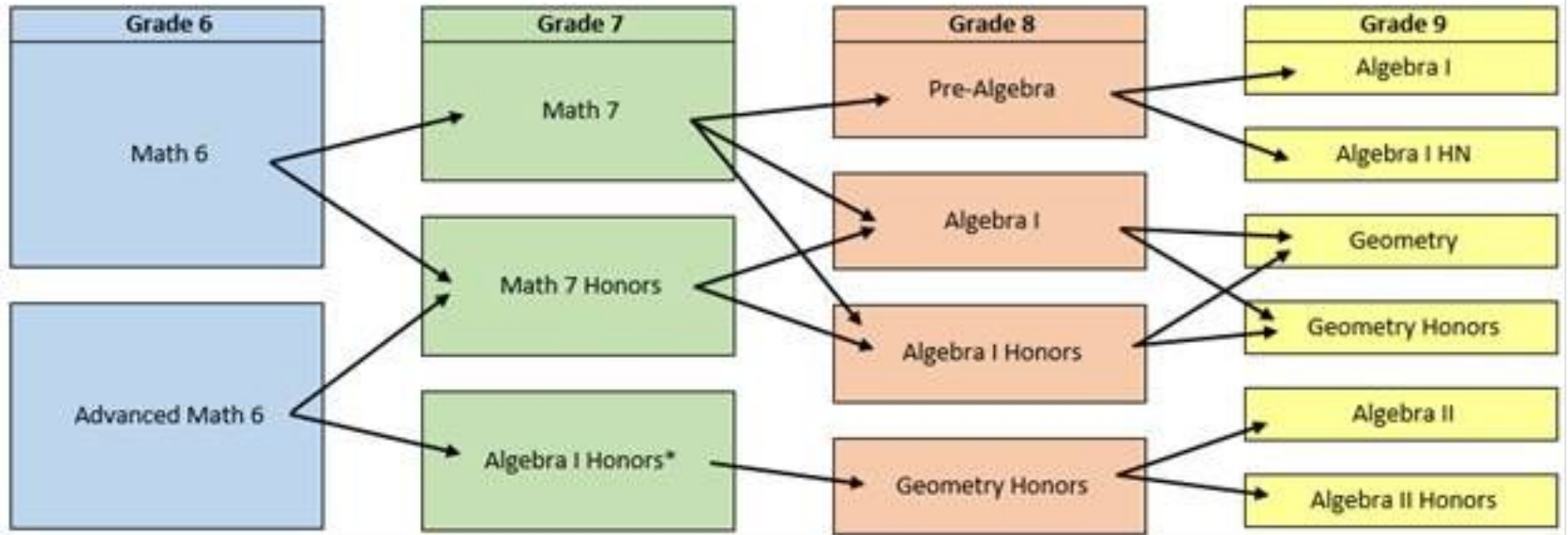
- Approved August 31, 2023
- Fully implemented in  
2024-2025 School Year



# Math Course Sequences

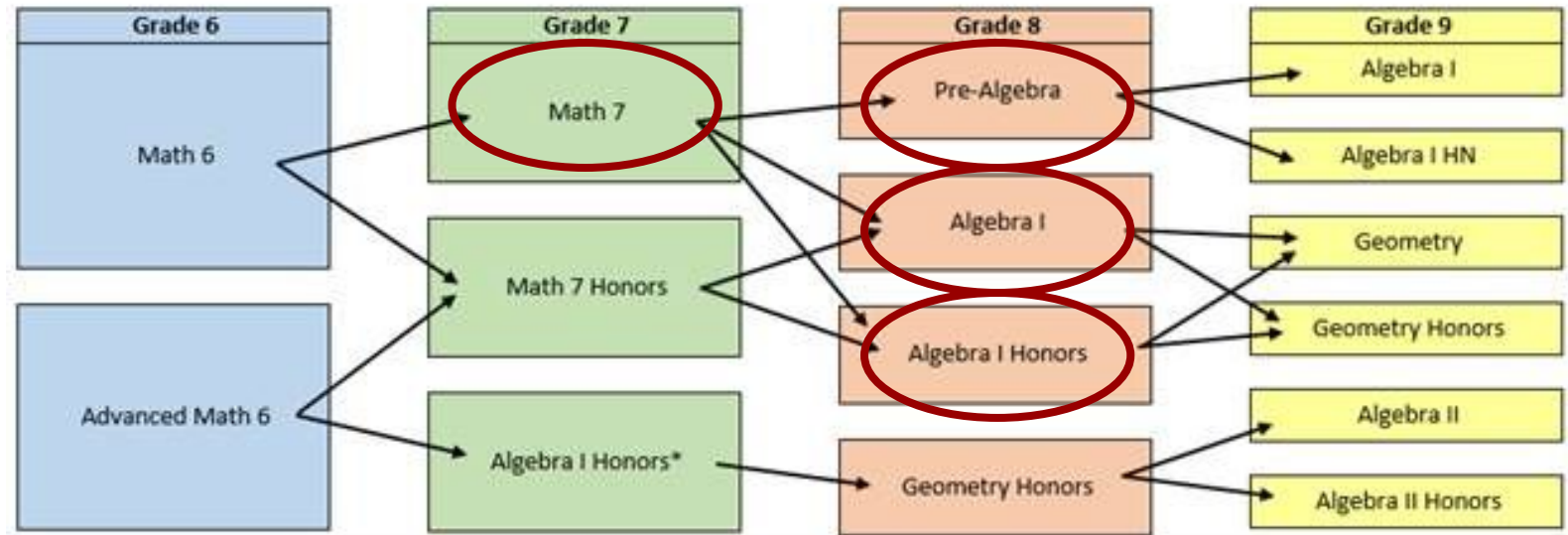


# Math Course Sequence



# Current Math 7 Students: Choose between Pre-Algebra and Algebra 1

## Mathematics Course Sequence

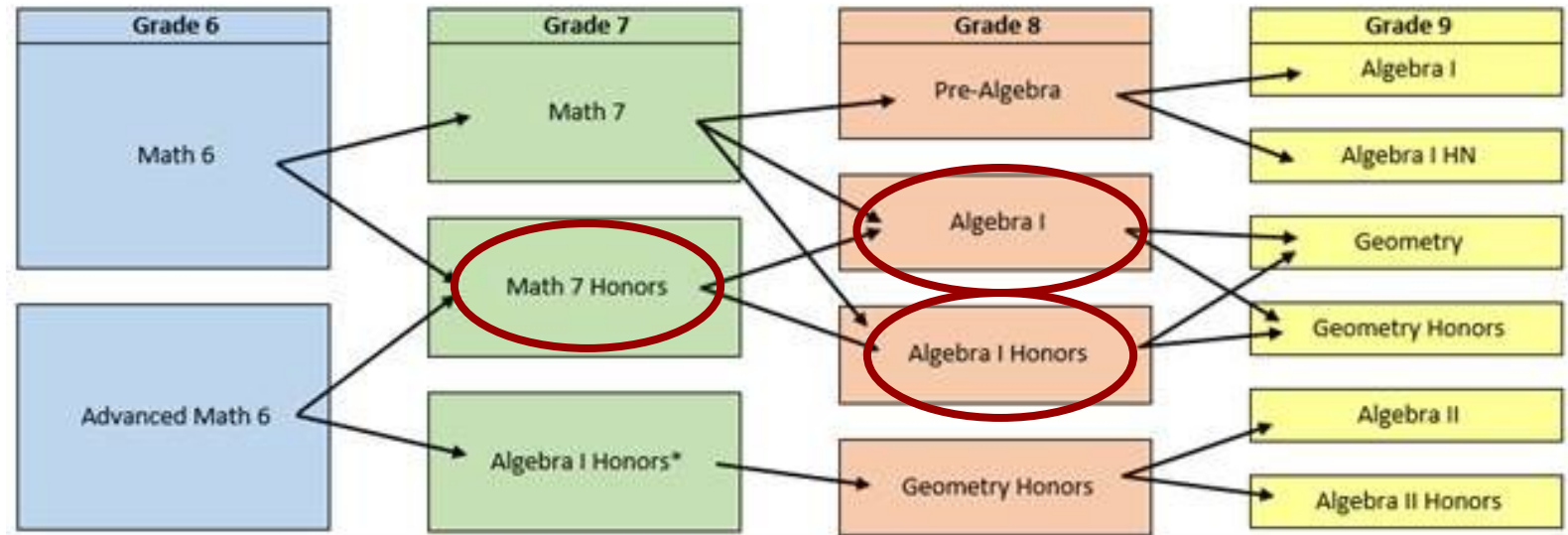


# Why Take Algebra?

- Open Enrollment
- Students must take Algebra 1 in 8th grade to complete the IB sequence in high school
- Allows students to access advanced level math courses in high school which can earn college credit
- Advanced level math courses are often prerequisites for post-secondary STEM majors
- Allows students to challenge themselves mathematically
- Early start on earning high school credits

# Current Math 7 Honors Students: Choose between Algebra 1 and Algebra 1 HN

## Mathematics Course Sequence



# Profile of an Algebra Honors Student

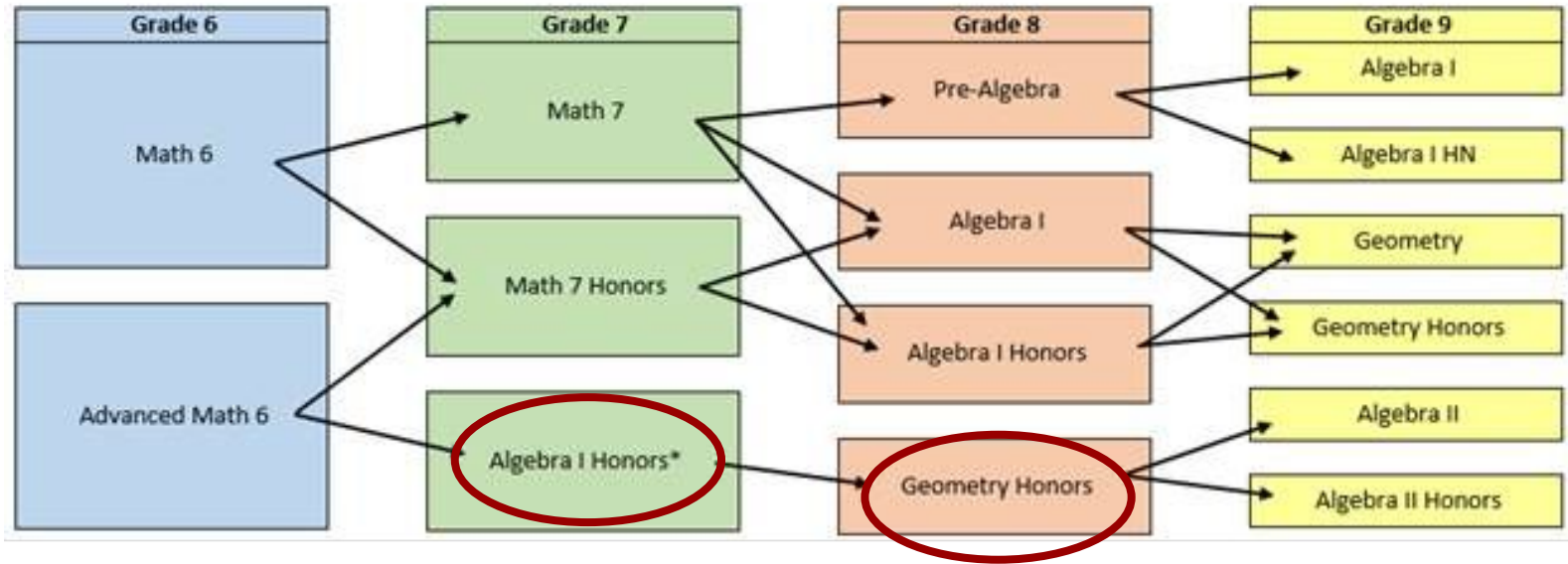
- Student is motivated and willing to work hard
- Student is currently performing well in Math 7 Honors and has passed previous SOLs
- 7th grade math teacher provides feedback indicating that the student has developed skills needed for Algebra Honors
- While Algebra Honors is open enrollment, families must make this decision thoughtfully

# Why Take Algebra Honors?

- Students may choose to challenge themselves mathematically
- Students must take Algebra 1 Honors in 8th grade to apply to TJHSST
- Boost to GPA
- Enter high school on an honors track in math

# Current Algebra 1 Honors Students: Move to Geometry Honors

Mathematics Course Sequence





# Support & Resources



# Summer Offerings

- Students **may not** take Algebra 1 over the summer
- Kilmer will offer an Algebra Summer Prep program
  - Intended for students moving from Math 7 to Algebra
  - Information will be shared 4th quarter
- FCPS will offer Geometry Honors
  - Dates and information will be updated on the FCPS Summer Learning Website

FCPS Summer Learning

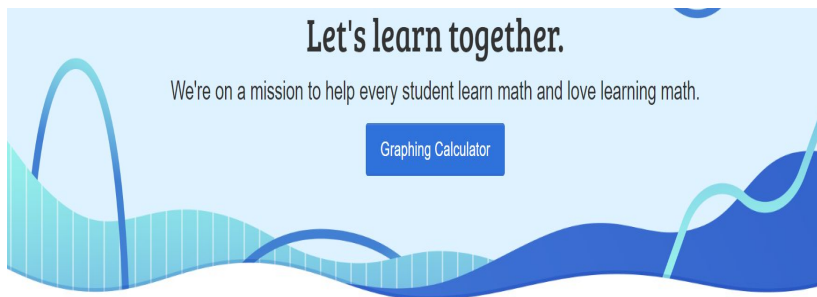


# Opportunities for Support


- **Learning Seminar:** Opportunity for students to have additional time to work with math teacher during the school day
- **After-School:** Opportunity for students to have additional time to work with math teacher. Each teacher has at least one after-school day per week
- **8th Grade Algebra Readiness:** Algebra support class offered to 8th grade Algebra students. This course will replace an elective.

# Resource: Desmos.com

- Students may use the calculator on the SOL



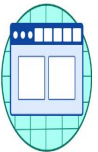
## Using Desmos Classroom?



### Students

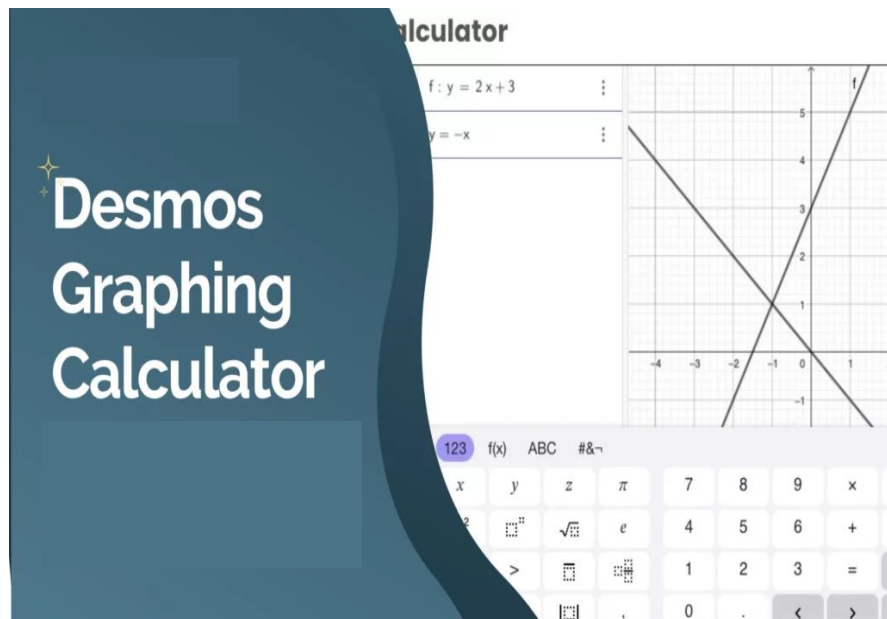
Join your classmates!

[Go to Student Homepage](#)



### Teachers

Interactive and creative activities for your math class.



calculator

$f: y = 2x + 3$

$y = -x$

Desmos  
Graphing  
Calculator

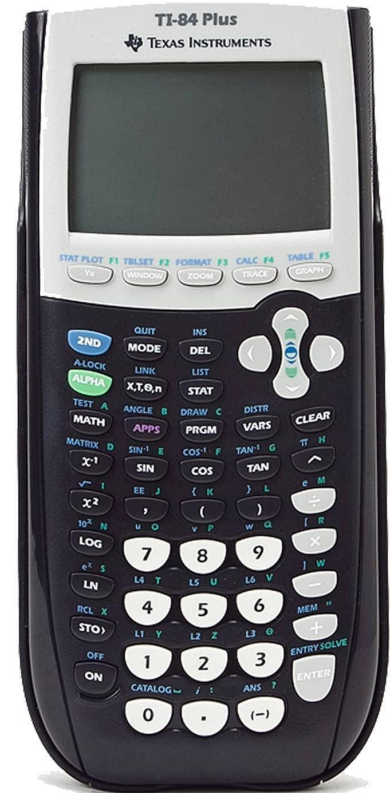
123 f(x) ABC #&-

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The image shows a screenshot of the Desmos Graphing Calculator interface. On the left, there is a dark blue overlay with the text 'Desmos Graphing Calculator' and a star icon. The main interface features a coordinate plane with two lines plotted: a blue line representing  $f: y = 2x + 3$  and a black line representing  $y = -x$ . Below the graph is a calculator keypad with various mathematical symbols and numbers. The top of the interface shows the word 'calculator' and the equations entered.

# Resource: TI-84+ Calculator

- All Algebra classrooms have a class set
- Used in most high school math courses, SAT, AP tests
- **No longer allowed on SOL**



# Resource: MathSpace

- Online techbook
- Access through Schoology and Clever (Google login)
- Practice problems with feedback



Mathspace

DISTRICT



# High School Course Information

# High School Credit Information

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- 3 math classes are required for Standard Diploma
- 4 math classes are required for Advanced Diploma

# Contact Information

**Ruth Baxley**, Math Department Chair

[rebaxley@fcps.edu](mailto:rebaxley@fcps.edu)

**Kaitlin Henderson**, Math Instructional Coach

[kehenderson@fcps.edu](mailto:kehenderson@fcps.edu)

**Melissa Smith**, Assistant Principal

[mwsmith@fcps.edu](mailto:mwsmith@fcps.edu)

# Resource: Delta Math



- Unlimited practice problems
- Targeted practice by benchmark
- Web-based with Google login