



2023-24

High School Math Course & Seq

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Christina Wooley

Sam Taylor

High School Mathematics
NEW Courses & Sequencing

2023-24

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Click on the image to hear a screen recording of this presentation or you can scroll through the slides at your own pace.

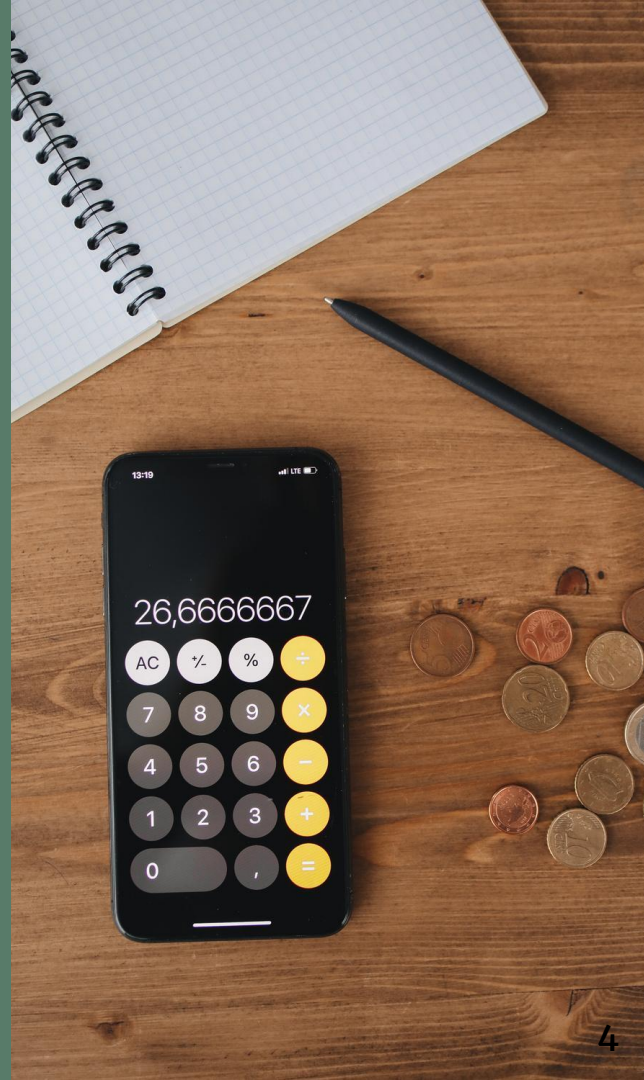
NEW Courses for 2023-24

AP Precalculus

**Modeling & Reasoning
with Mathematics**

AP Precalculus

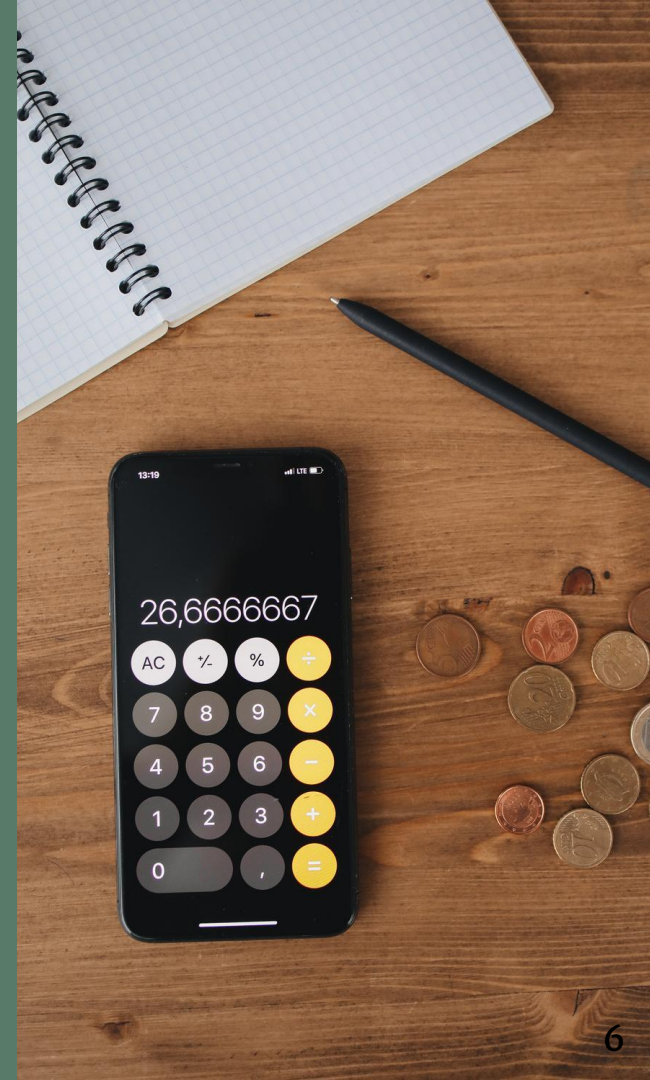
- Replaces Honors Precalculus
- Part of the STEM pathway
- Prerequisite Honors Algebra 2



	STEM A	STEM B	College Prep	College/ Post-Secondary	High School Minimum
9th	Honors Algebra 2	Honors Geometry	Geometry	Algebra 1	Algebra 1
10th	AP Precalculus (AP Statistics)	Honors Algebra 2	Algebra 2	Geometry	Geometry
11th	AP Calculus AB (AP Statistics) (AP Comp Sci)	AP Precalculus (AP Statistics)	MRM or Trig/Precalculus (Trig/Das)	Algebra 2	Algebra 2
12th	AP Calculus BC (AP Statistics) (AP Comp Sci)	AP Calculus AB (AP Statistics) (AP Comp Sci)	AP Statistics (AP Calculus AB)	MRM or (Trig/Precalculus/DAS) (Electives)	Electives (MRM)

Modeling & Reasoning with Mathematics

- A course designed to immerse students in project-based learning.
- Developed by ODE and OMI (Ohio Mathematics Initiative) over the past 6 years.
- College Prep Track



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Modeling and Reasoning with Mathematics

Number & Quantity

Remodeling the Classroom
Gear Ratios
Driving for Gas
Planning a Road Trip
Credit Cards

Functions– Part 1

Which Amusement Park?
Bungee Drop
Follow the Bouncing Ball
One Good Bounce
Buying a Car

Functions–Part 2

Catapult Project
Modeling Cancer Cells with M&Ms
Buying a House
Skid Mark Trial
The Big Fish Story

Geometry

Logo Design
Mini-Golf Design
Unraveling the Unit Circle

Statistics

Misusing Statistics
Flinging Frogs
M&Ms Sampling Distribution
What Does the Normal Distribution Sound Like
Colors Challenge

Probability

Taste Test Challenge
Free Throws for the Win
Random Babies
Thinking about False Positives
Carnival Games

Applications of Number Quantity & Statistics

Inflation & Consumer Price Index
Public Policy

Let's take a closer look...

Number & Quantity

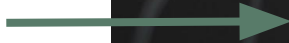
Remodeling the Classroom

Gear Ratios

Driving for Gas

Planning a Road Trip

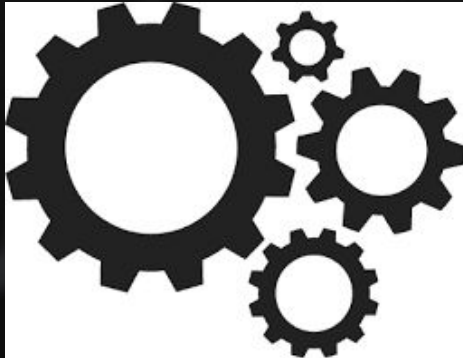
Credit Cards



Students are introduced to the way gears work and the relationship between sizes of gears, based on the relative number of teeth in the gears, gear ratios and relative speeds of the bicycle wheels. Students later list gear combinations and ratios for bicycles of different speeds.

Standards: G.MG.3

2- 45 minute classes

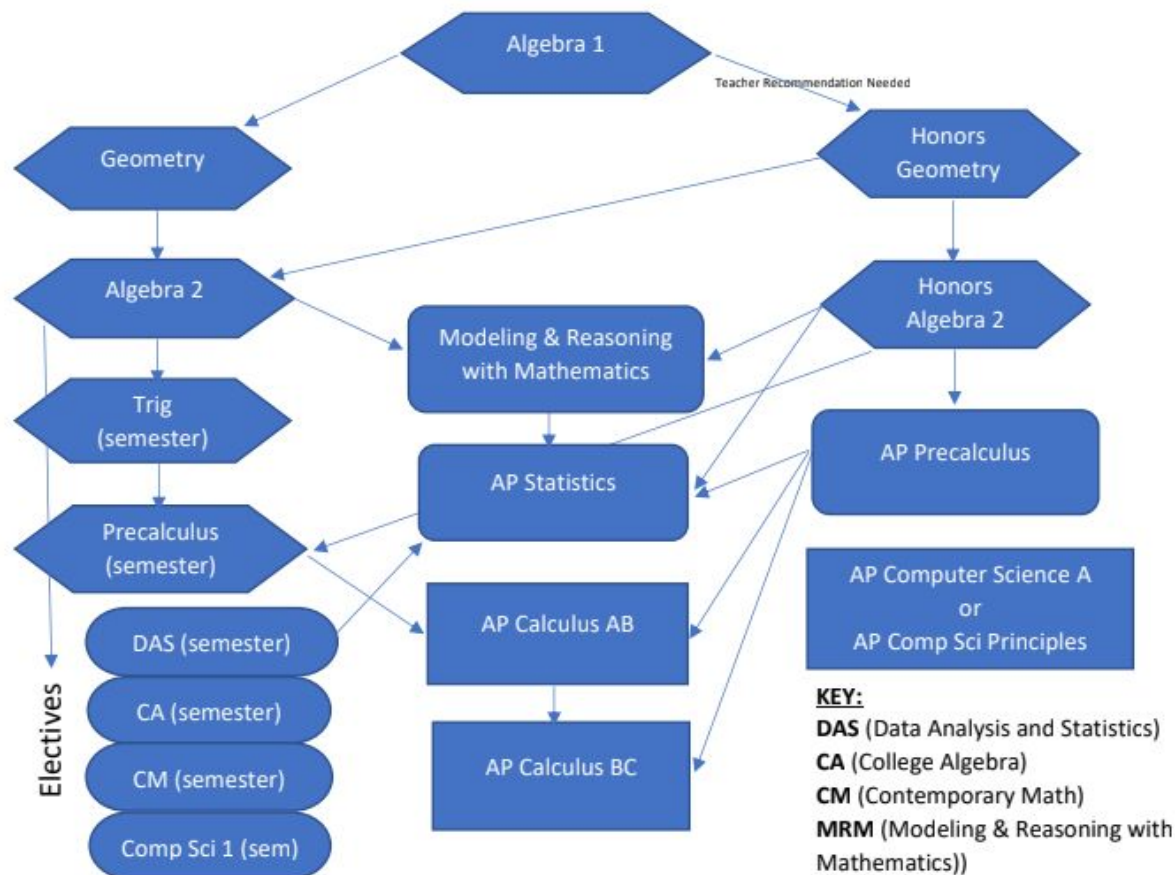


Who should take AP Precalculus or Modeling and Reasoning with Mathematics?



Hudson High School Mathematics

Flowchart and Course Sequencing



	STEM A	STEM B	College Prep	College/ Post-Secondary	High School Minimum
9th	Honors Algebra 2	Honors Geometry	Geometry	Algebra 1	Algebra 1
10th	AP Precalculus (AP Statistics)	Honors Algebra 2	Algebra 2	Geometry	Geometry
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I am a sophomore in Honors Algebra 2

My grade is an A or B

Take AP Precalculus

My grade is a B or C

AP Precalculus

Trig/Precalculus

Modeling and Reasoning with Mathematics

Data Analysis & Statistics & Precalculus

I am a sophomore in Algebra 2

My grade is an A or B

Modeling and Reasoning with Mathematics
Trig/Precalculus

My grade is a B or C

Modeling and Reasoning with Mathematics

I am a junior in Trig & Precalc

My grade is a A or B

AP Statistics

AP Calculus AB

AP Precalculus

Modeling and Reasoning with Mathematics

My grade is a C, D or F

Modeling and Reasoning with Mathematics

Data, Analysis & Statistics

College Algebra

Contemporary Mathematics (CM)

I am a junior in Honors Algebra 2

My grade is an A or B

AP Precalculus

AP Statistics

Trig and Precalculus

Modeling and Reasoning with Mathematics

My grade is a C or D

Modeling and Reasoning with Mathematics

Data, Analysis & Statistics

College Algebra

Contemporary Mathematics (CM)

Trig and Precalculus

I am a junior in Algebra 2

My grade is an A or B

**Modeling and Reasoning with Mathematics
Trig and Precalculus**

My grade is a C or D

**Data, Analysis & Statistics
College Algebra
Contemporary Mathematics (CM)
Modeling and Reasoning with Mathematics**

What should be considered when selecting mathematics courses?



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Thank you!



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