

Math Night

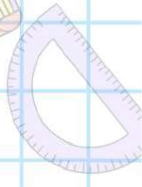
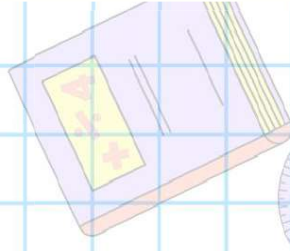
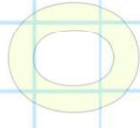
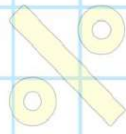
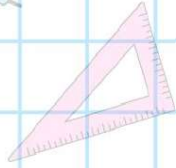
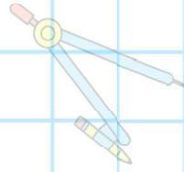
Cooper Middle School

January 28, 2024

Dana Scabis Director of Student Services

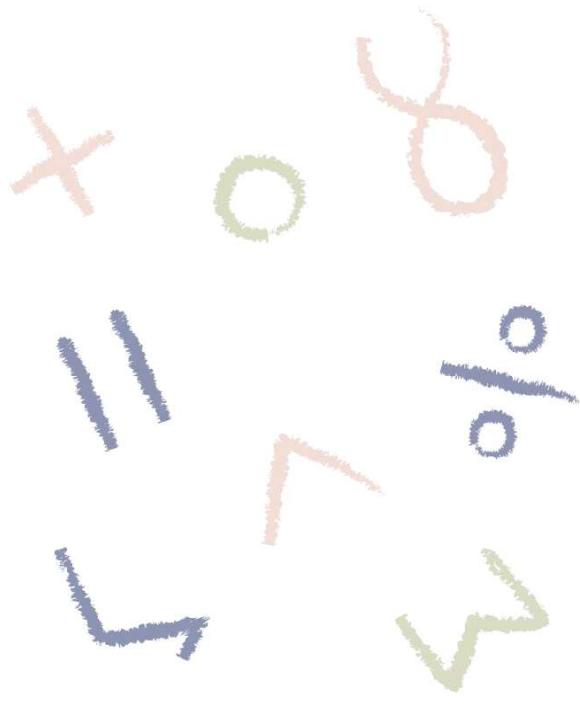
Maureen McLoughlin Assistant Principal

Lisa Walsh Math Department Chair



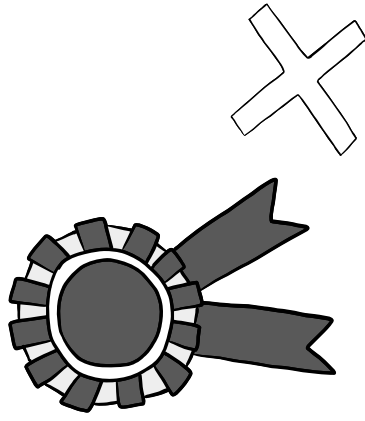
Goals for the Evening

- Understand the secondary mathematics course options in FCPS
- Hear about considerations when selecting a course for next year



**“Why do I need
to learn this?”**





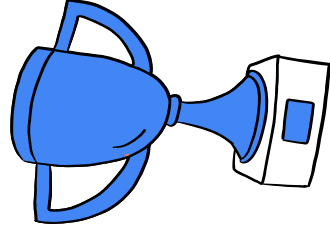
Career Interests

Start with thinking about what you are passionate about.

Course Pathways

Make an informed decision about which courses will be available for your student to enroll. Make a four year plan!

$$a^2 + b^2 = c^2$$



Graduation Requirements

We hope our students are engaged in mathematics courses each year of their K-12 career.

Career Path

Example 1

Entrepreneur/Small Business Owner

- Algebra 2
- Data Science
- Prob/Stats or AP Statistics



Career Path

Example 2

Aircraft Systems Engineer

- Precalculus
- AP Calculus
- Computer Science



Career Path

Example 3

School Counselor

- AFDA or Algebra 2
- Prob/Stat or Discrete Math



Career Path

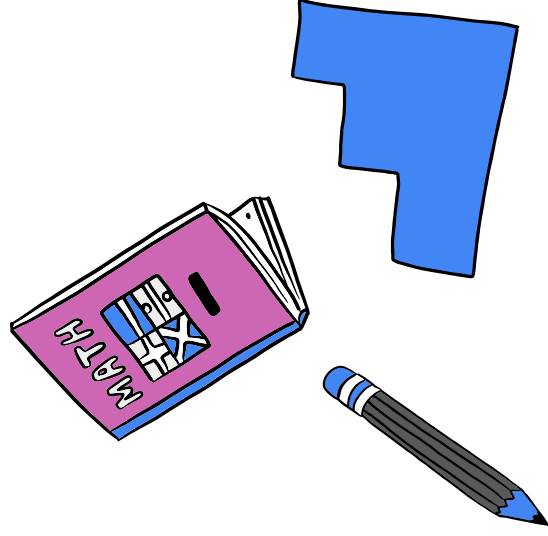
Example 4

AI Prompt Engineer

- Precalculus
- Data Science
- Computer Science



Graduation Requirements for Math



Standard Diploma 3 Math Credits

At least **two** different course selections from

among:

Algebra I,
Geometry,
Algebra Functions, and
Data Analysis,
Algebra II,

or other mathematics courses approved by the board to satisfy this requirement.

Advanced Diploma 4 Math Credits

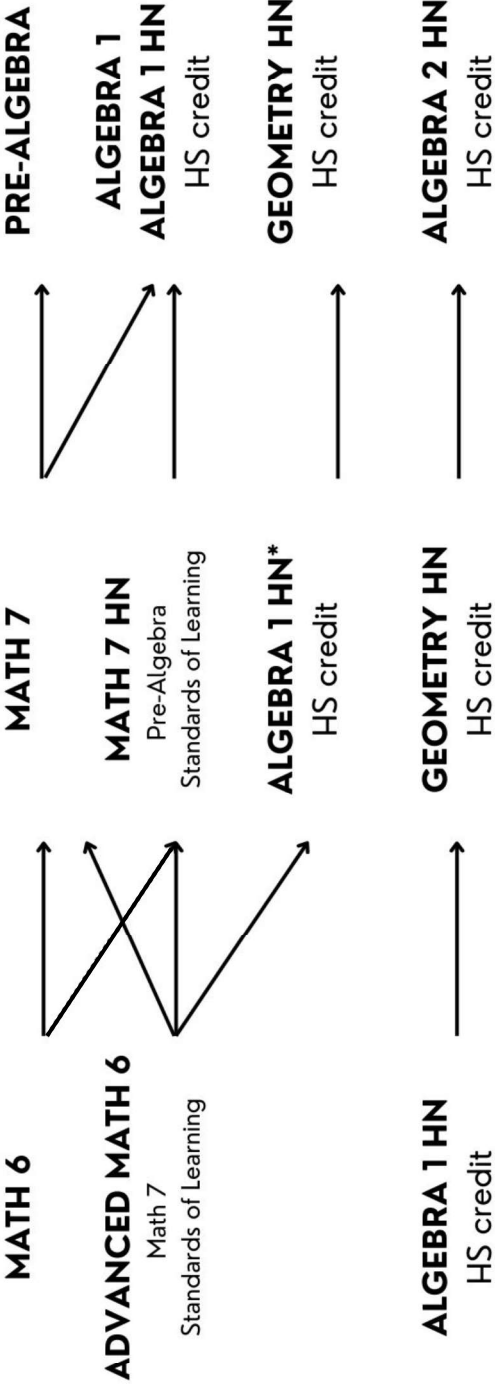
At least **three** different course selections from

among: Algebra I,

Geometry, Algebra II, or
other mathematics

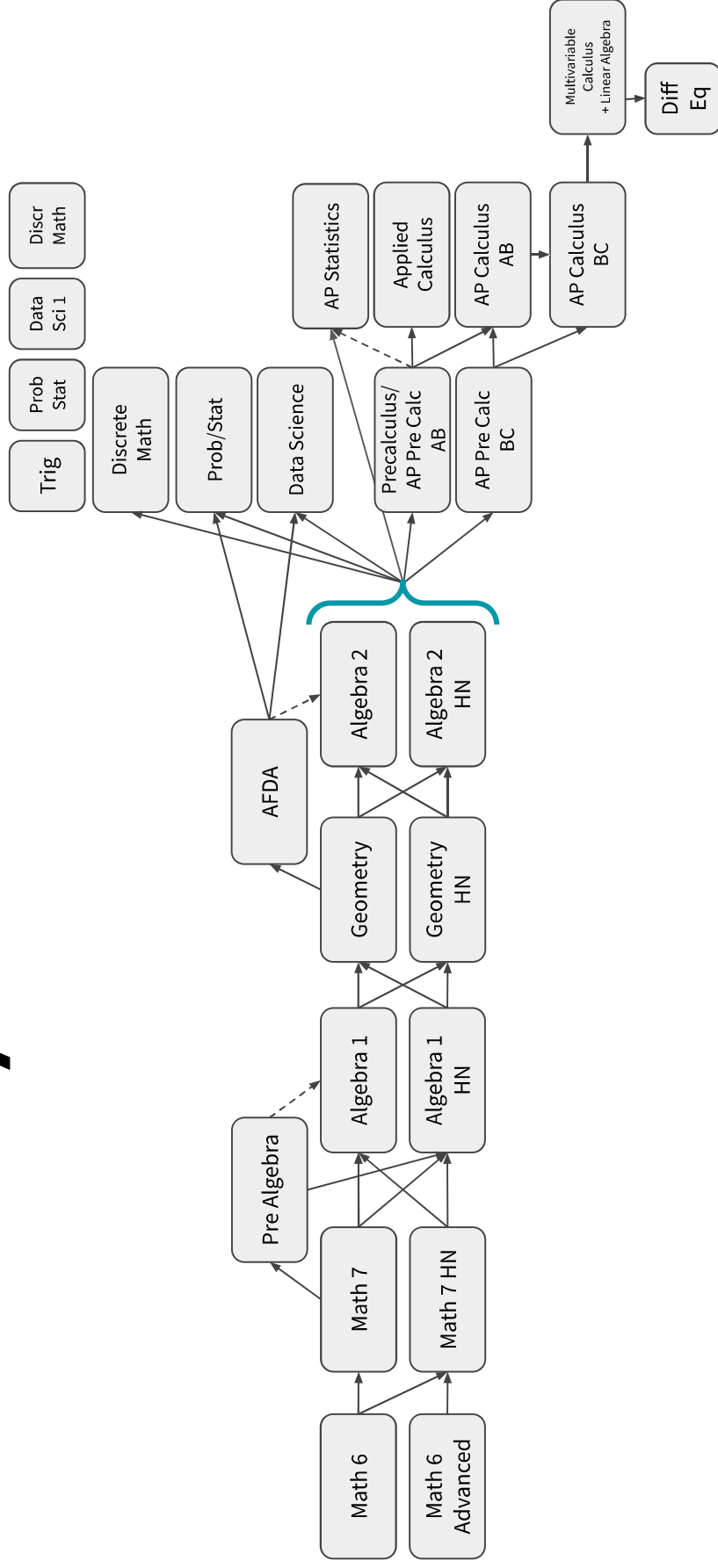
courses above the level of Algebra II. The board shall approve courses to satisfy this requirement.

MATH OPTIONS GRADES 6-8



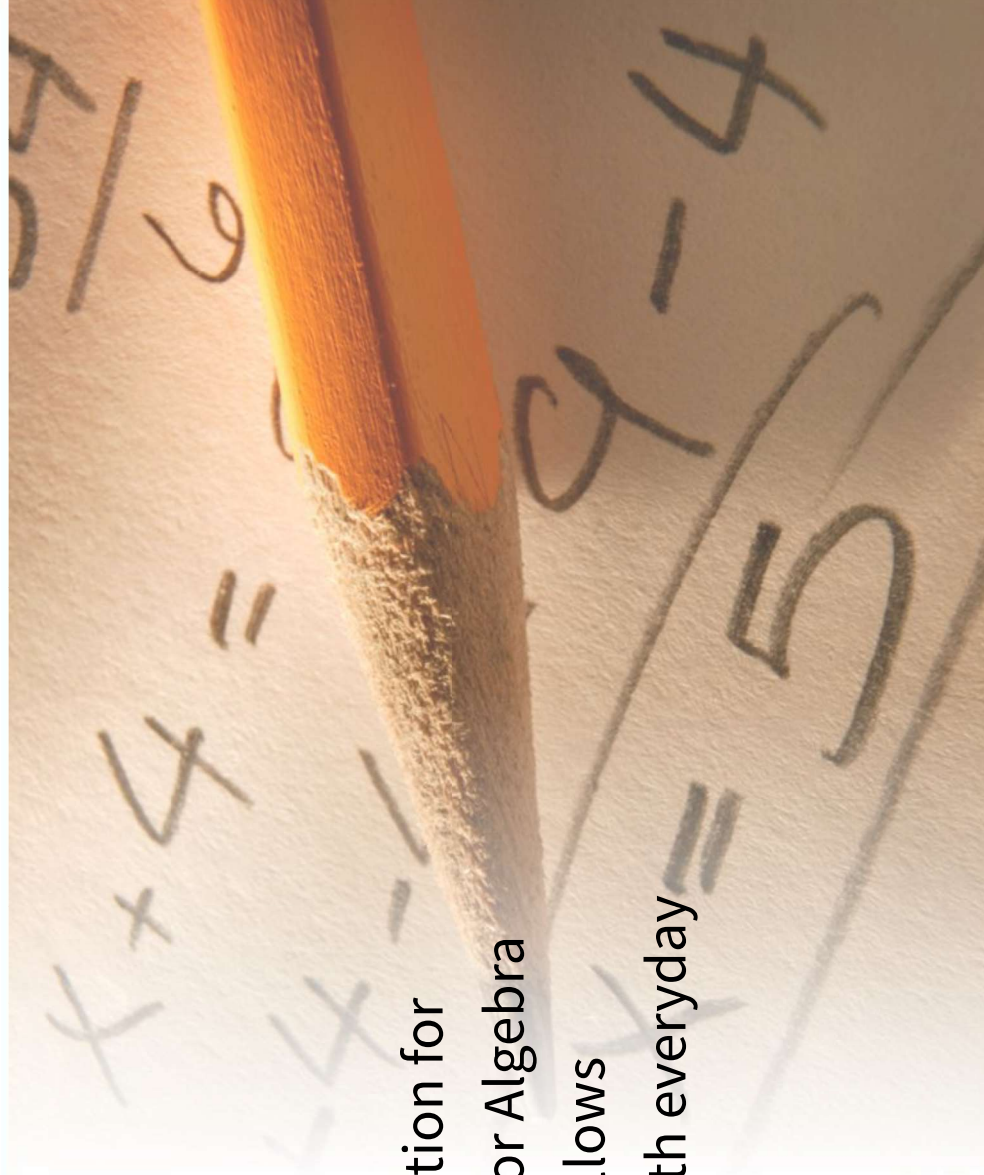
*Must meet criteria to enroll

Math Pathways Grades 6-12



Algebra Readiness

- Year long elective option for students signed up for Algebra
- Adding this course allows students to have math everyday for 86 minutes



Special Education and Multilingual Learners

If your child has an IEP and you have questions regarding placement, please contact their special education case manager, or Cooper's Special Education Department Chair, Leah Lemon.

If your child receives multilingual learner services you have questions regarding placement, please contact Cooper's ESOL department chair, Susan Butler.

HS Courses for Credit over the Summer

FCPS Online Summer Learning

- Historically registration opens in January and goes through June 7
- Students must take the first attempt at the first course in a High School sequence in the traditional school year
- Available Math Courses
 - Algebra 1 (**repeat students only**)
 - Geometry and Geometry Honors
 - Algebra 2
- 6-7 asynchronous hrs and a mandatory live class each day
- In person testing for midterm, final, and SOL

Outside of FCPS Program - Prior approval required to transfer a course credit

What mathematical habits are expected?

Students in honors or advanced courses should be:

- Enjoy a fast paced curriculum
- Enthusiastic for challenging math problems
- Eager to solve problems 2 or more ways
- Excited to explain thinking and ask others about their thinking
- Seeking connections between topics in math class and with other classes
- Willing to take initiative in rigorous work
- Willing to demonstrate fluency of mathematical ideas without a calculator

What should a student consider when selecting a course?

*It is okay if a student does not have their whole future planned at age 12!
Instead, frame this as “What doors does my child want to leave open?”*

- **Long-term goals** (in mathematics and other courses)
- **Interest and passion in mathematics**
- **Current interest & comfort level with most essential content**
- **Mindset as a mathematics learner** (fixed vs. growth mindset)

What should a student consider when selecting a course? (continued)

- **What mathematics behaviors do I see in myself?**
 - Flexibility of thinking -- Procedures (“When I see this, then I do this.”) vs. Concepts
 - Where is your child’s focus -- Making sense of mathematics vs. the right answer
 - Resilience and Perseverance
- **Balance!**
 - Coursework
 - Extra curriculars
 - Hobbies

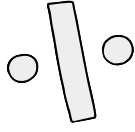
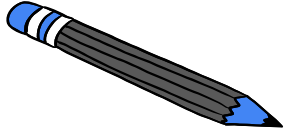
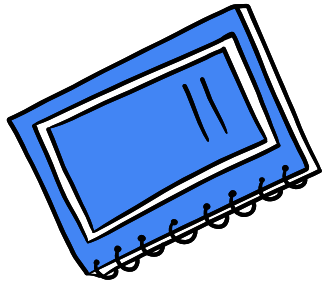
What's Next?

Academic Advising in February

- Rising 7th Grade
 - Cooper Counselors visit 6th Grade classes: to hand out the **pink course selection sheets** and explain the course selection process
 - January 30th, 5:30 PM Zoom Math Information Night encore
 - The information covered will be the same
- Rising 8th Grade
 - January 30th, 5:30 PM Zoom Math Information Night encore
 - The information covered will be the same
 - February 6th and 10th- Block 4: Lessons on the Course Selection Process
 - Students will receive their **blue course selection sheets**

Thank You!

Any questions?



$$a^2 + b^2 = c^2$$

