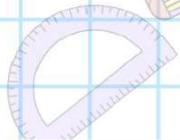
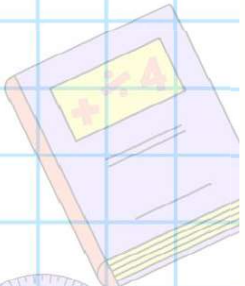
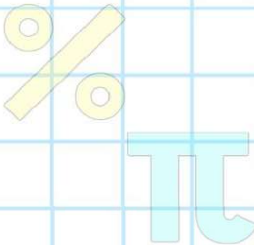




Math Night

Cooper Middle School
January 28, 2024

Dana Scabis Director of Student Services
Maureen McLoughlin Assistant Principal
Lisa Walsh Math Department Chair

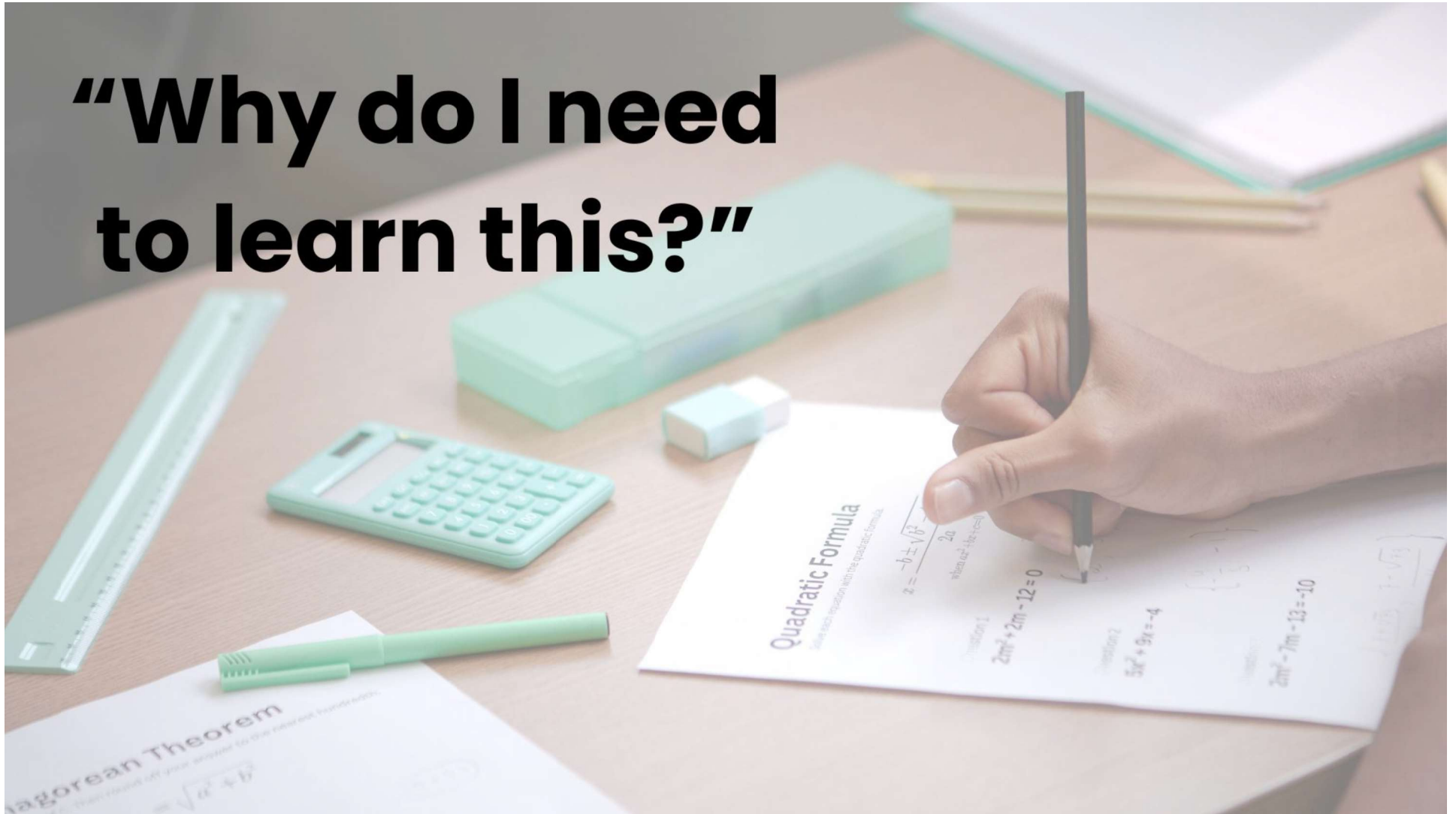


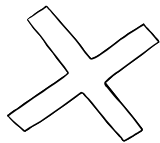
Goals for the Evening

- 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.

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



Course Pathways

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

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





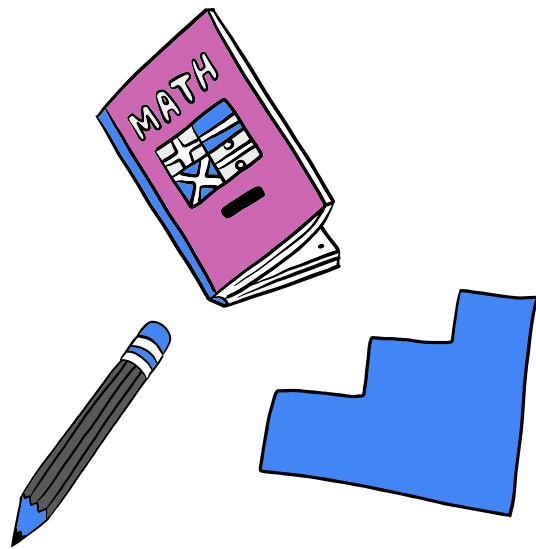
Career Path

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

6TH GRADE

7TH GRADE

8TH GRADE

MATH 6

ADVANCED MATH 6
Math 7
Standards of Learning

ALGEBRA 1 HN
HS credit

MATH 7

MATH 7 HN
Pre-Algebra
Standards of Learning

ALGEBRA 1 HN*
HS credit

GEOMETRY HN
HS credit

PRE-ALGEBRA

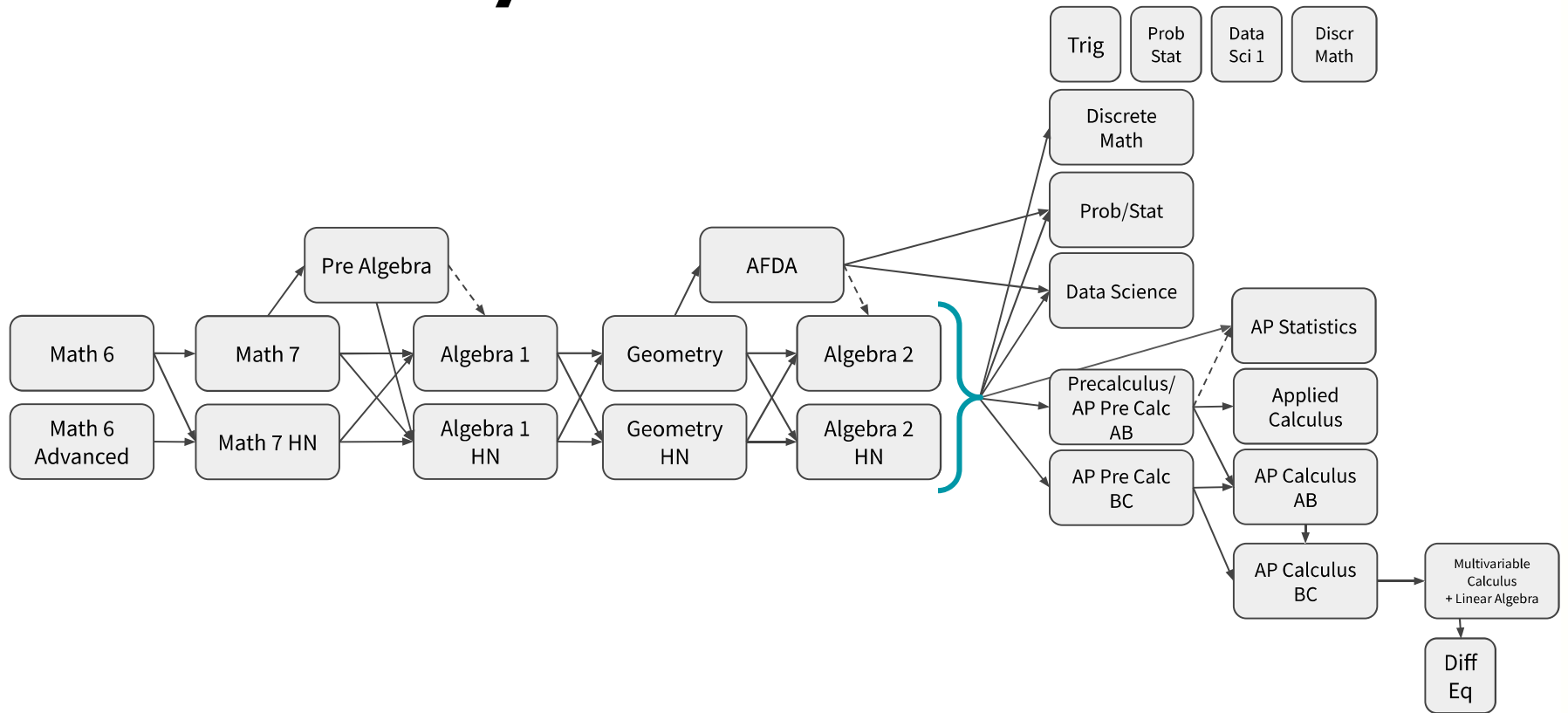
ALGEBRA 1
ALGEBRA 1 HN
HS credit

GEOMETRY HN
HS credit

ALGEBRA 2 HN
HS credit

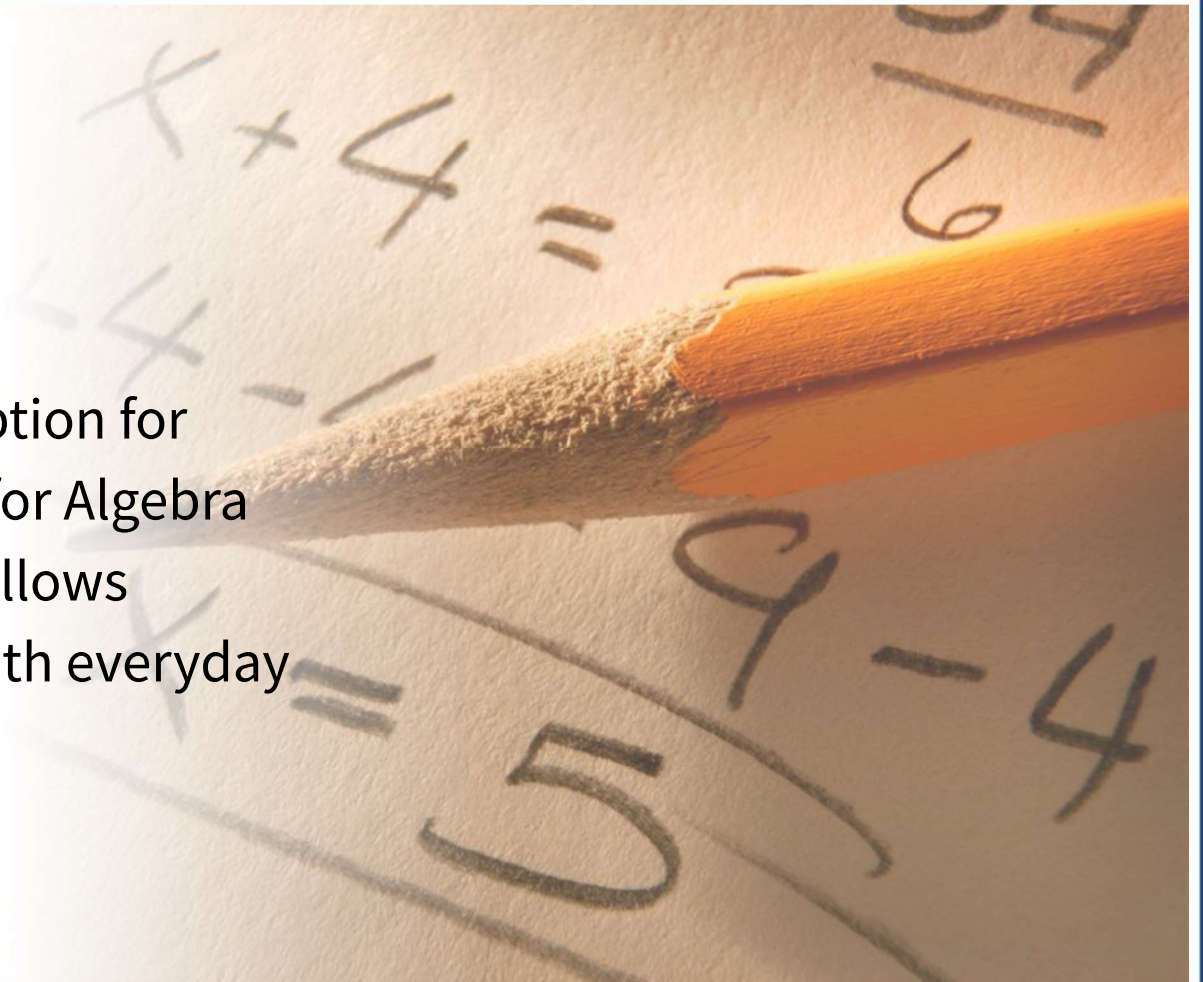
*Must meet criteria to enroll

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**



**Cooper Middle School
7th Grade
Course Selection Sheet**

Student Name: _____
Student ID: _____
Elementary School: _____



Step 1: Select Required 7th Grade Courses*

Circle any combination of Standard and Honors courses. If Full-Time AAP eligible, circle the AAP column.

	Standard	Honors	Full-Time AAP (Formally known as Level IV)	Health & PE 7
English 7	111000	111036	FCPS Full-Time AAP eligible students, will be pre-assigned AAP English, History & Science courses in SIS. No action required.	Two semesters of Health & PE 7 will be pre-assigned in SIS.
US History	235500	235536	*Level II, level III, or principal-placed AAP student, please select any combination of standard or honors courses.	
Science	411500	411536		

Math Course

Algebra 1 HN: If your student is found eligible for Algebra 1 HN, Cooper MS will communicate eligibility by separate correspondence in July. At this time no rising 7th grade students can request Algebra Honors. **Please select Math 7 HN.**

Math 7 - 311100 Math 7 Curriculum	Math 7 Honors - 311136 Pre-Algebra Curriculum

Step 2: Request Electives Course* Circle one of the following and rank your electives:

2 Full-year elective + 4 semester alternates (Rank your electives below 1, 2, 3, 4, 5, 6)	or	1 Full-year elective and 2 semester electives + 4 semester alternates (Rank your electives below 1, 2, 3, 4, 5, 6, 7)	or	4 semester electives + 4 semester alternates (Rank your electives below 1, 2, 3, 4, 5, 6, 7, 8)
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Full-Year Electives

Rank	World Languages (High School Credit Courses)	Rank	Music
	Chinese 1 - 581000		All music course request in SIS will say "intermediate" until director determines your placement.
	French 1 - 511000		Intermediate Band (Includes Percussion) - 923311
	Japanese Immersion 1 - 591067 <small>Level Path: F3 Immersion students only</small>		Intermediate Chorus - 928510
	Spanish 1 - 551000		Intermediate Orchestra - 923810

Semester Electives (Half-Year)

Rank	Visual Arts & Other	Rank	Career & Technical Ed	Rank	Literacy & Theater Arts
	Art Foundations - 910532		Engineering 1: Design & Modeling - 846432		Journalism - 116168
	Computers in Art (Prerequisite: Art Foundations) - 911562		Engineering 2: Simulation & Fabrication (Prerequisite: Engineering 1) - 846332		Creative Writing - 110862
	3D Art Exploration (Prerequisite: Art Foundations) - 910632		Coding & Innovative Tech 1 - 616032		Media Communications - 139062
	Strategies for Success - 781932		Coding & Innovative Tech 2 (Prerequisite: Coding & Innovative Tech 1) - 616062		Theater Arts Appreciation - 139067
	Foundations of Yoga for Wellness - 720132		Family & Consumer Sciences 1 - 826332		Technical Theater Appreciation - 139065

Step 3: Enter course requests into SIS StudentVue*

Enter the following into SIS StudentVue by searching the **course code** (not the title):

- Standard and honors core classes (if AAP eligible your core classes are preassigned in SIS)
- Electives requests
- Alternate semester elective requests

*Students that receive special education or multilingual learner services, please fill the above to the best of your ability. Cooper staff will make changes in SIS based on the team's decision.

Step 4: Sign

Signatures Student: _____ Parent/Guardian: _____

Course request changes after June 1, 2025, must be requested via email and approved by administration. I understand that the school reserves the right to change a student's schedule based on scheduling needs, course availability due to enrollment and/or other scheduling requirements.



**Cooper Middle School
8th Grade
Course Selection Sheet**

Student Name: _____
Student ID: _____
Elementary School: _____



Step 1: Select Required 8th Grade Courses**

Circle any combination of Standard and Honors courses. If Full-Time AAP eligible, circle the AAP column.

	Standard	Honors	Full-Time AAP (Formally known as Level IV)	Health & PE 7
English 8	112000	112036	FCPS Full-Time AAP eligible students, will be pre-assigned AAP English, Civics & Science courses in SIS. No action required.	Two semesters of Health & PE 7 will be pre-assigned in SIS.
Civics	235700	235736		
Science	412500	412536		

Circle one Math Course

Pre-Algebra 311200	Algebra 1* 313000	Algebra 1 Honors* 313036	Geometry Honors* 314336 (Prerequisite: Algebra 1 HN)	Algebra 2 Honors* 313536 (Prerequisite: Geometry HN & Algebra 1 HN)	AP Pre-Calculus BC* 316093 (Prerequisite: Algebra 2 HN, Geometry HN & Algebra 1 HN)

***High School Credit Courses**

Step 2: Request Electives Courses** Circle one of the following and rank your electives:

2 Full-year elective + 4 semester alternates	Rank your electives below 1, 2, 3, 4, 5, 6	or	1 Full-year elective and 2 semester electives + 4 semester alternates	Rank your electives below 1, 2, 3, 4, 5, 6, 7	or	4 semester electives + 4 semester alternates	Rank your electives below 1, 2, 3, 4, 5, 6, 7, 8
----------------------------------------------	--------------------------------------------	----	-----------------------------------------------------------------------	-----------------------------------------------	----	----------------------------------------------	--------------------------------------------------

Full-Year Electives

Rank	World Languages (High School Credit Courses)	Rank	Visual, Literacy, & Theater Arts	Rank	Music
	Chinese 1 - 581000		Advanced Theater - 139568		All student select "intermediate" and director determines placement.
	French 1 - 511000		Adv Journalism/Yearbook - 116160		Intermediate Band (Includes Percussion) - 923311
	Spanish 1 - 551000		Art Extensions - 911500		Intermediate Chorus - 928510
	Chinese 2 - 582000				Intermediate Orchestra - 923810
	French 2 - 512000				
	Japanese Immersion 2 - 592068				
	Spanish 2 - 552000				

Mathematics

Algebra Readiness - 811010 This course is ONLY for students who have selected Algebra 1 and need support to gain a strong foundation in Algebra.

Semester Electives (Half-Year)

Rank	Visual Arts & Other	Rank	Career & Technical Ed	Rank	Literacy & Theater Arts
	Art Foundations - 910532		Engineering 1: Design & Modeling - 846432		Journalism - 116168
	Computers in Art (Prerequisite: Art Foundations) - 911562		Engineering 2: Simulation & Fabrication (Prerequisite: Engineering 1) - 846332		Creative Writing - 110862
	3D Art Exploration (Prerequisite: Art Foundations) - 910632		Engineering 3: Advanced Design & Prototypes (Prerequisite: Engineering 2) - 846362		Media Communications - 139062
	Strategies for Success - 781932		Coding & Innovative Tech 1 - 616032		Theater Arts Appreciation - 139067
	Foundations of Yoga for Wellness - 720132		Coding & Innovative Tech 2 (Prerequisite: Coding & Innovative Tech 1) - 616062		Advanced Theater Arts Appreciation - 139569
			Family & Consumer Sciences 1 - 826332		Technical Theater Appreciation - 139065

Step 3: Enter course requests into SIS StudentVue

Enter the following into SIS StudentVue by searching the **course code** (not the title):

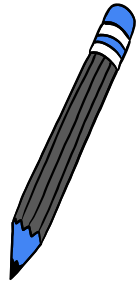
- Standard and honors core classes (if AAP eligible your core classes are preassigned in SIS)
- Electives requests
- Alternate semester elective requests

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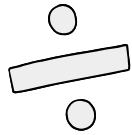
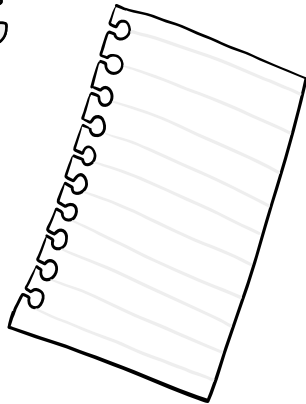
Step 4: Sign

Signatures Student: _____ Parent/Guardian: _____

Course request changes after June 1, 2025, must be requested via email and approved by administration. I understand that the school reserves the right to change a student's schedule based on scheduling needs, course availability due to enrollment and/or other scheduling requirements.



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



Thank You!

Any questions?