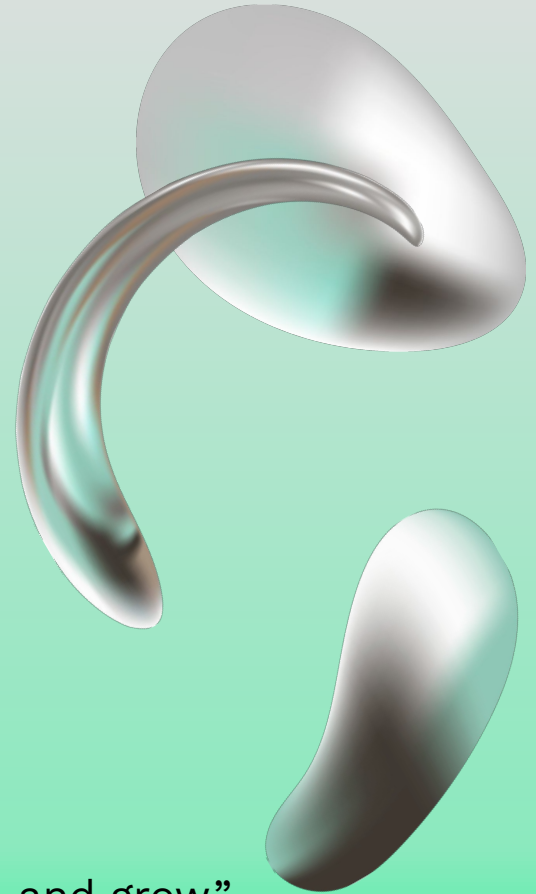


Livingston Public Schools

Math Parent Night: Math Sequence Gr. 6-12



“Empowering all to learn, create, contribute, and grow.”



Agenda

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Mathematics Scope & Sequence

Mathematics Vision

The mathematics program provides engaging instruction that is fully aligned with the focus, coherence, and rigor of the New Jersey Student Learning Standards (NJSLS).

In each grade level, instruction is focused on:

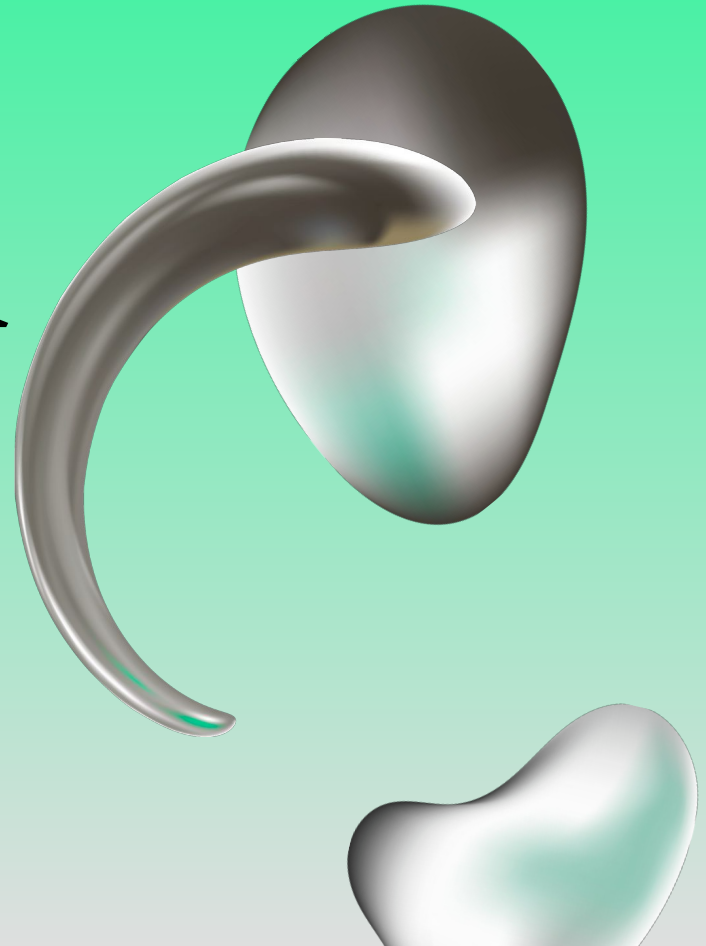
- Conceptual Understanding
- Application
- Procedural Skill and Fluency



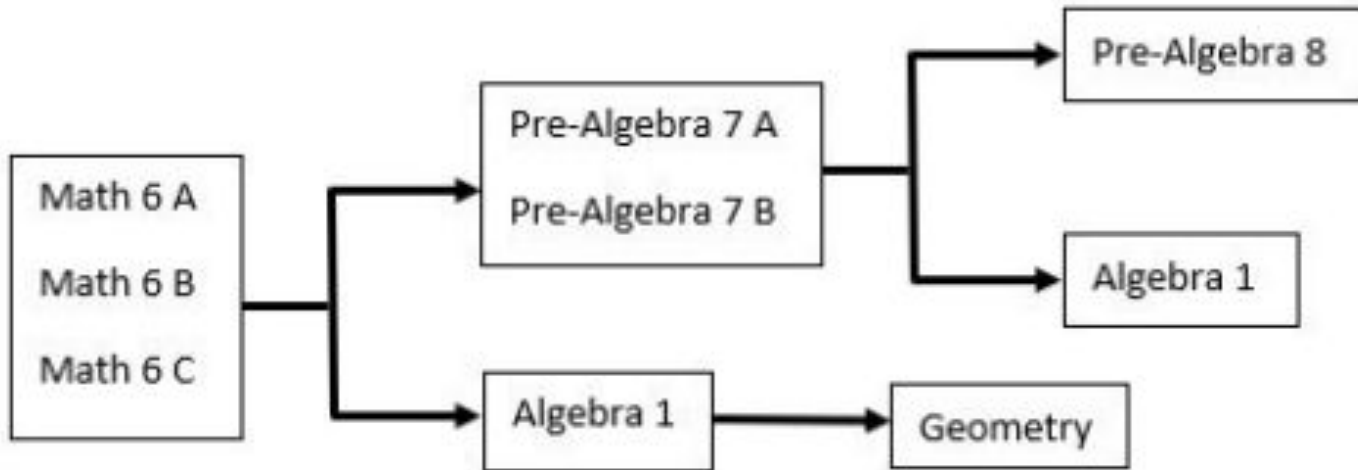
Mathematics Program Overview: Grades 6-8

- Multiple and diverse pathways to meet the learning needs of students.
- The mathematics courses in grades 6, 7, and 8 provide students with a strong Pre-Algebra foundation for students to be successful in the high school math sequence.
- Students who are ready to advance mathematically are able to take high school math courses in grades 7 and 8.
- A comprehensive placement process is in place to determine Algebra 1 readiness in grades 7 & 8
- Appropriate models of technology are infused throughout the program.

Middle School Math Courses and Sequence



Math Sequence: Grades 6 - 8



Mathematics Grade 6

The middle school mathematics sequence takes into account student developmental readiness as well as the progression of the New Jersey Student Learning Standards (NJSLS). The mathematics placement process takes into consideration that math success is closely related to developmental readiness in terms of conceptual and abstract thinking.

Grade 6 students all take Grade 6 Math which is organized into:

- Math 6 A
- Math 6 B
- Math 6 C

Students in all levels are taught the same NJ Student Learning Standards based curriculum, which appropriately prepares them for rigorous future math classes, but the classes differ in the degree of teacher directed instruction as well as the extent to which independent work is expected of students.

Mathematics Grade 7

- Two levels of Pre-Algebra in grade 7:
 - Pre-Algebra 7A
 - Pre-Algebra 7B
- Both courses teach students the foundation for Algebra.
- Courses are aligned to NJSL.
- Pre-Algebra 7A - faster pace, more depth, students expected to show greater independence.
- Placement is fluid: if students begin the year in Pre-Algebra B, they can move to Pre-Algebra A based on performance in class.

Algebra I: Grade 7

- High school course
- Material typically covered in grades 7 and 8 are learned through warm-up assignments, homework, and self-study.
- Student must maintain a B average in each marking period or the student is dropped from the course.
- Students take Geometry in grade 8.

Algebra I: Grade 7

- If students are struggling in Geometry in grade 8, there is no other course for them to take. Students cannot retake Algebra 1.
- Students must not only have the skills and math ability to accelerate, they must also have the appropriate maturity level to meet the demands of a high school course.
- When students accelerate too quickly before they are ready, they often struggle with math classes and may not progress to the level desired.

Mathematics Grade 8

- Three course offerings in grade 8:
 - Pre-Algebra 8
 - Algebra 1
 - Geometry
- Courses are aligned to NJSLs.
- Pre-Algebra 8 is aligned to the grade 8 standards. It is different from Pre-Algebra in grade 7.

Algebra I: Grade 8

- Students gain a solid Pre-Algebra foundation in grade 7.
- Students must maintain a C average or better to stay in the course or they are moved to Pre-Algebra 8.
- Students are able to take any level of Geometry at LHS
 - Geometry Honors
 - Geometry CP

Geometry: Grade 8

- Advanced course that follows the high school Geometry Honors curriculum.
- Students apply algebraic concepts (solid algebra foundation required).
- Students explore concepts and make own conclusions.
- Questions require students to apply several different skills and concepts.
- Students will take a form of Algebra 2 in high school:
 - Algebra 2 Honors (mostly 10th graders)
 - Algebra 2 CP (10th and 11th graders)

Academic Support and Enrichment Opportunities



Basic Skills Instruction (BSI):

- Students who struggle to perform at a minimum level of proficiency to meet the NJSLs will be scheduled for the BSI program.
- Criteria include:
 - Teacher recommendation
 - District level math assessment (if applicable)
 - Previous BSI support
 - Standardized test scores (if available)
- Students in BSI receive additional support within the mathematics classes and in occasional small group settings.

Resource Center Program

- Placement for Resource Center is determined by the Child Study Team.
- Individualized instruction and support is provided by the student's IEP.

Grade 7 Pre-Algebra Lab

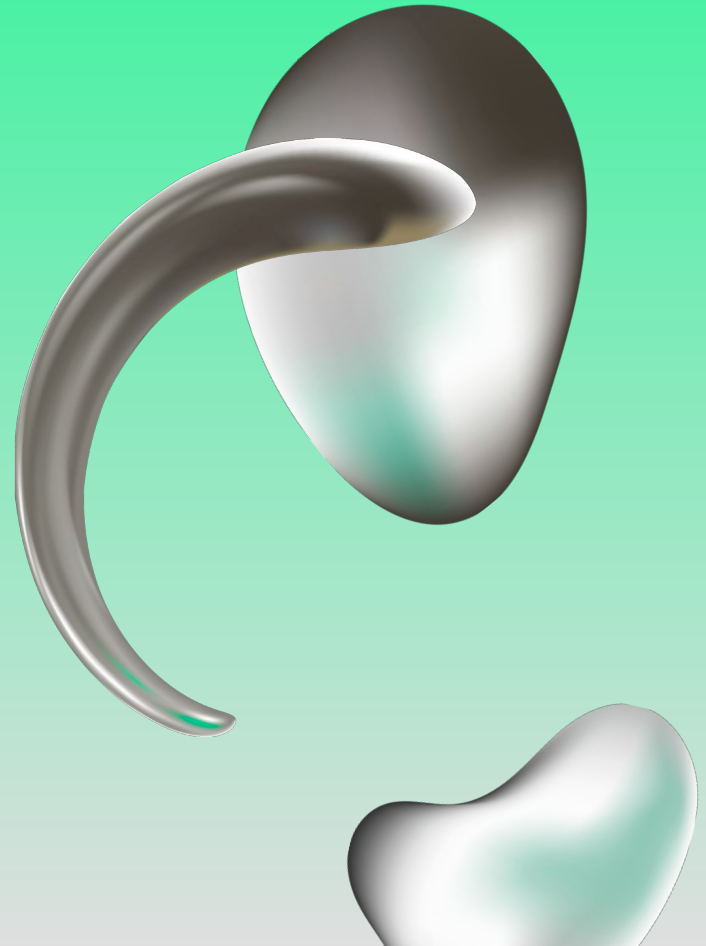
- Additional class period of math instruction in grade 7.
- Designed for students who could benefit from a slower pace and more opportunities to review and practice skills.
- Placement is determined by data collected in grade 6, including teacher recommendation.

Enrichment Opportunities

Students will have the opportunity to participate in mathematics competitions.

- Math Counts
- New Jersey Math League
- Continental Math League
- American Mathematics Competition (AMC 8)

The Placement Process



Placement Process

- Comprehensive placement process relying on the following data:
 - Standardized test scores (OLSAT, NJSLA/PARCC)
 - Algebra Readiness Test
 - Benchmark assessments
 - Student performance in class
 - Teacher feedback
- Placement in grades 7 and 8 determine the mathematics sequence students will follow in high school.

Placement Process: Grades 6 - 7

It is a data driven process that includes a review of the following multiple data points:

- Average of grades earned in Marking Periods 1, 2, and 3
- Teacher observation of student mathematical practices (see selected practices below:)
 - Student makes sense of problems and perseveres in solving them.
 - Student displays a wide range of problem-solving strategies.
 - Student is a creative, insightful, original, and flexible thinker.
 - Student applies prior knowledge to novel situations/problems.
 - Student has effective written and verbal communication skills to explain own thinking and conceptual understanding.
 - Student has a strong conceptual understanding of skills through the concrete, pictorial, and abstract stages of learning.
- Benchmark Assessments
 - Measuring Up
 - iReady

Based on the above data collection, students will be placed into Pre Algebra A or B. Matrix data will determine eligibility for Algebra 1 readiness test.

Placement Process: Grades 7 - 8

It is a data driven process that includes a review of the following multiple data points:

- Average of grades earned in Marking Periods 1, 2, and 3
- Teacher observation of student mathematical practices (see selected practices below:)
 - Student makes sense of problems and perseveres in solving them.
 - Student displays a wide range of problem-solving strategies.
 - Student is a creative, insightful, original, and flexible thinker.
 - Student applies prior knowledge to novel situations/problems.
 - Student has effective written and verbal communication skills to explain own thinking and conceptual understanding.
 - Student has a strong conceptual understanding of skills through the concrete, pictorial, and abstract stages of learning.
- Benchmark Assessment
 - Measuring Up

Based on the above data collection students will be placed into Pre Algebra 8 or Algebra 1 in 8th grade.

Placement Process

- Placement data is gathered in the spring.
- Meeting with teachers, math supervisors, MPM Principal, HMS Principal and Director of Curriculum and Instruction to review placement.
- Careful discussions about students, especially about those on the border of course cut-off scores.
- Placement information available in the Genesis Parent Portal in June.
- After reviewing placement information, parents must submit a written notification (e-mail) to:
 - For placement into Grade 7 - Angelina Rodriguez - arodriguez@livingston.org
 - For placement into Grade 8 - Antonio Matheus - amatheus@livingston.org

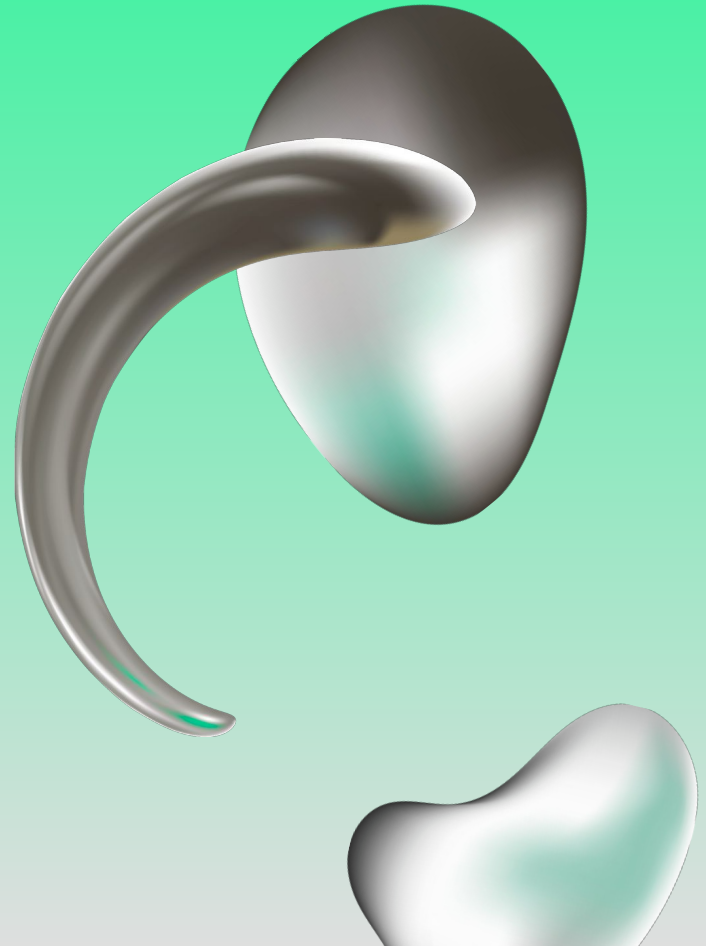
Placement Process

- A very small percentage of students are placed in Algebra 1 in grade 7.
- Students must meet several rigorous criteria to be recommended for placement in Algebra 1 in Grade 7.
- Students must maintain an average of B or better in order to stay in Algebra 1 in grade 7. If not, they are moved into Pre-Algebra 7 A.
- Students must maintain an average of C or better in order to stay in Algebra 1 in grade 8. If not, they are moved into Pre-Algebra 8 (this usually happens before the holiday break).

Placement Matrix: Grade 6 into 7

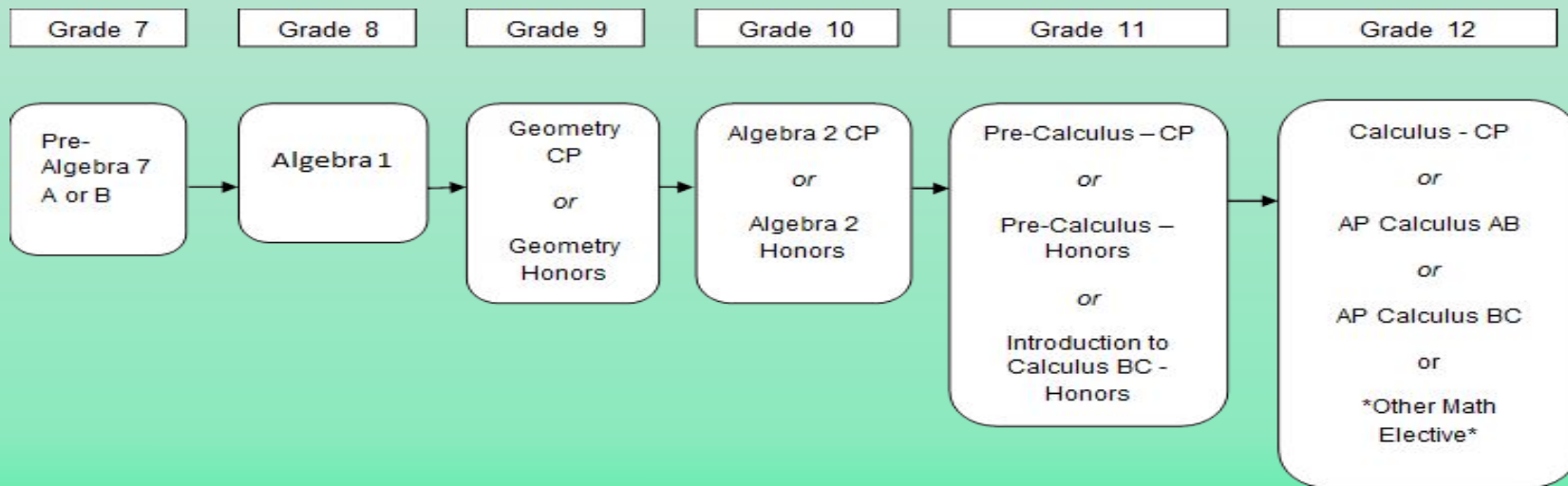
Student	Teacher	Math Level 20-21	Math Level 21 - 22	Matrix Score	MP 1	MP 2	MP 3	MP 1,2,3 Avg.	Bench mark Assess ment 1	Bench mark Assess ment 2	Trec	NJSLA-3 V	NJSLA-3 M	NJSLA4 V	NJSLA-4 M	NJSLA5- VS	NJSLA5-V PL	NJSLA5-M S	NJSLA5-M PL
Student 1	Teacher 1	A	Alg. 1	100	99.82	98.28	98.3	98.8	50	50	20	300	300	300	300	812	5	840	5
Student 2	Teacher 2	A	A	84	84.92	90.04	89.32	88.09	47	45	17	225	270	230	280	772	4	780	4
Student 3	Teacher 3	B	A	81	93.76	91.87	92.92	92.85	37	40	18	238	285	210	268	745	3	749	3
Student 4	Teacher 4	C	A	80	87.12	84.97	86.57	86.22	39	37	16	240	276	208	280	752	4	735	3
Student 5	Teacher 5	C	B	76	90.60	88.50	87.45	88.85	37	35	15	224	253	218	205	NA	NA	NA	NA

Mathematics Sequence: Grades 7 - 12



7-12 Mathematics Sequence: Possible Pathways for Students

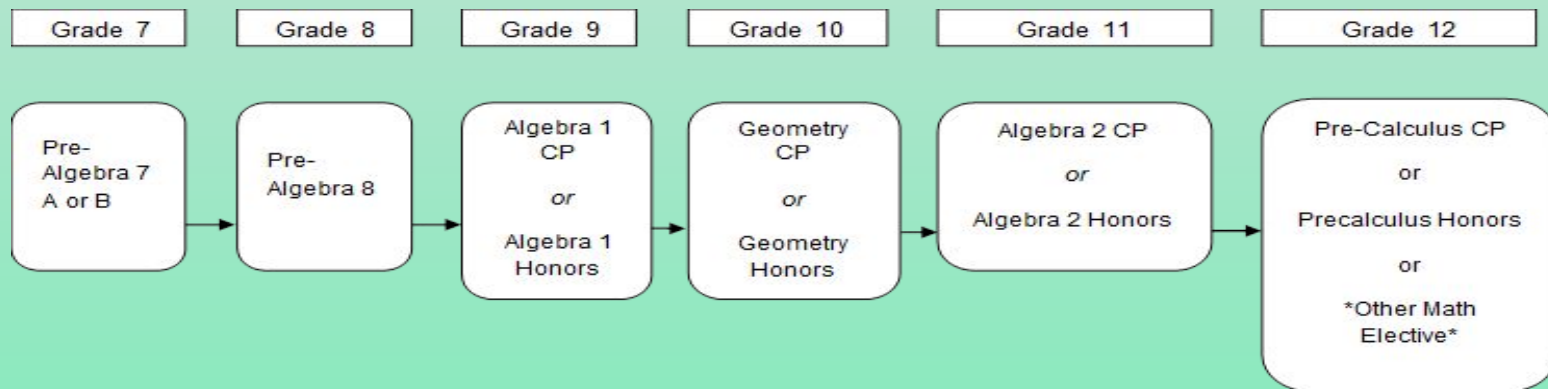
Students take Algebra 1 in Grade 8



7-12 Mathematics Sequence

Possible Pathways for Students

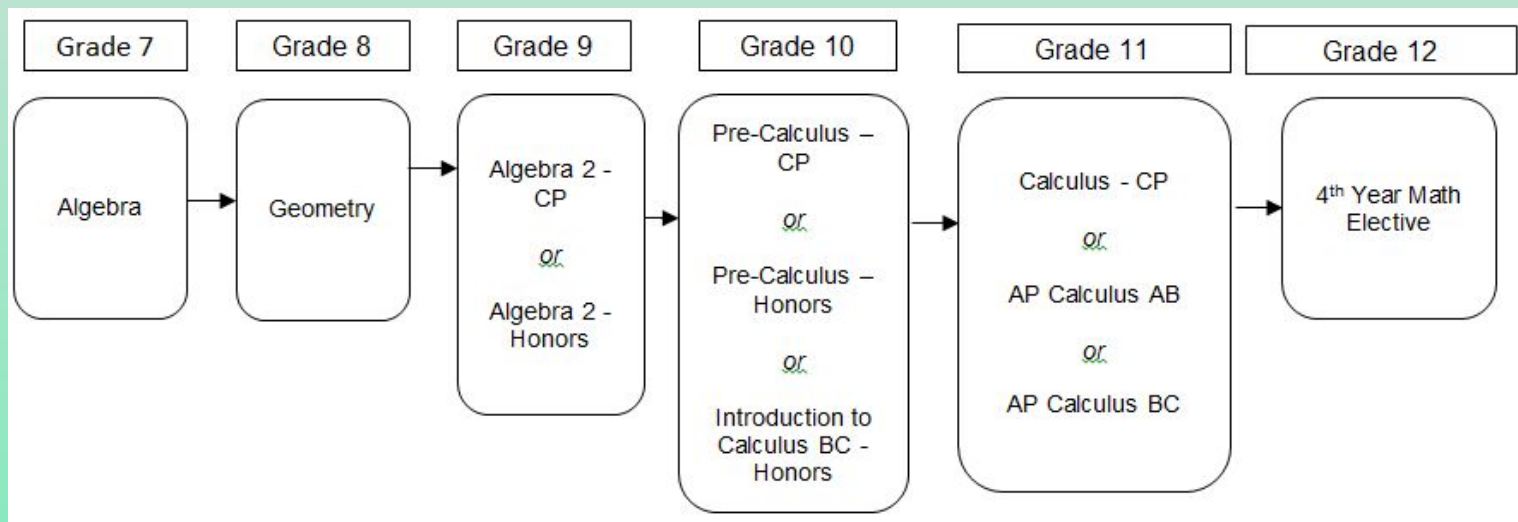
Students take Pre-Algebra in Grade 8



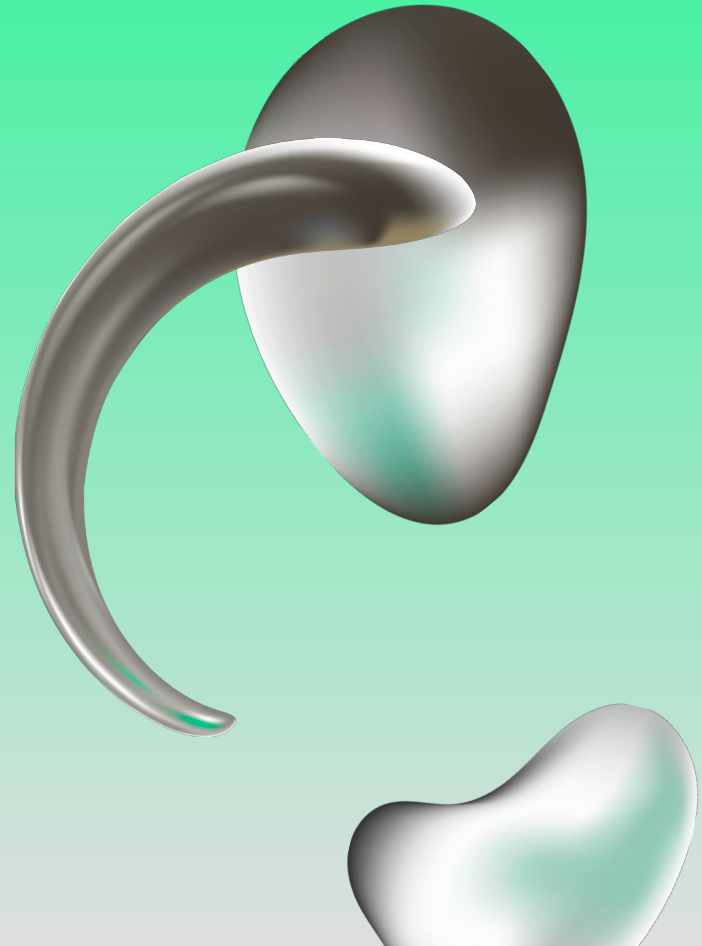
7-12 Mathematics Sequence

Possible Pathways for Students

Students take Algebra 1 in Grade 7



Reflections and Wonderings



Resources

For questions about the 7-12 math program, contact: Antonio Matheus

(973)535-8000 X 8052

amatheus@livingston.org

For questions about the Pre-K-6 math program, contact:


Angelina Rodriguez

(973)535-8000 X 8073

arodriguez@livingston.org

K-12 Mathematics Curriculum

<https://www.livingston.org/Page/29029>



Join our Math Supervisors for an information session about our Middle School Mathematics program, placement process, and 7 - 12 math sequence.

Livingston Public Schools Math Parent Night: Math Sequence Gr. 6 - 12

Tuesday, April 20, 2021

7:00 - 8:00 pm

Target Audience: Current 6th and 7th Grade Parents/Guardians

Webinar Link: Click [here](#) to join us Tuesday, 4/20, at 7pm.

