

# Sayreville Public Schools Department of Mathematics

Revised Math Continuum  
Presentation to the Board of Education

$\pi$

## Current Design and Structure

- › Currently students exit Samsel Upper Elementary School and are placed in a math course at the Middle School which is an integrated approach to learn 6<sup>th</sup> grade Mathematics Standards.
- › Upon completion of 6<sup>th</sup> grade Mathematics, students are placed in one of three Mathematics courses.
- › Upon completion of 7<sup>th</sup> grade Mathematics, students are placed in Algebra 1, Algebra 1A or Pre-Algebra based on performance criteria and teacher recommendation.

## Current Design (Continued)

- › As students exit the middle school and begin their high school career, most are enrolled in Algebra 1B, Algebra 1-9, Geometry Honors or Geometry 9.
- › While at the high school a typical student will complete:
  - Algebra 1 or Algebra 1B
  - Geometry
  - Algebra 2
  - Pre-Calculus or Algebra 3/ Trig
  - Calculus and in some cases, Seniors are able to complete AP Calculus AB or AP Calculus BC.
- › We have aligned the following courses with Middlesex County College for credit through the High School Scholars Program:
  - Calculus, Pre-Calculus (all levels), and Algebra Applications



## Redesigned Mathematics Continuum

- › In order to allow more students to complete Algebra 1 at Sayreville Middle School, a redesign in the scope and sequence will take place for the 2015 – 16 school year.
- › Beginning in September, 2015 8<sup>th</sup> grade students will be enrolled in one of three courses:
  - Algebra 1 Honors
  - Algebra 1 CP
  - Algebra 1A
- › Projections include between 75% - 80% of students graduating from Sayreville Middle School will have completed Algebra 1 thereby allowing exploration of higher level math classes at War Memorial High School such as Trigonometry, Pre Calculus, Calculus and beyond.



# Proposed Course Map

Proposed Mathematics Course Sequence for 2015-16 School Year

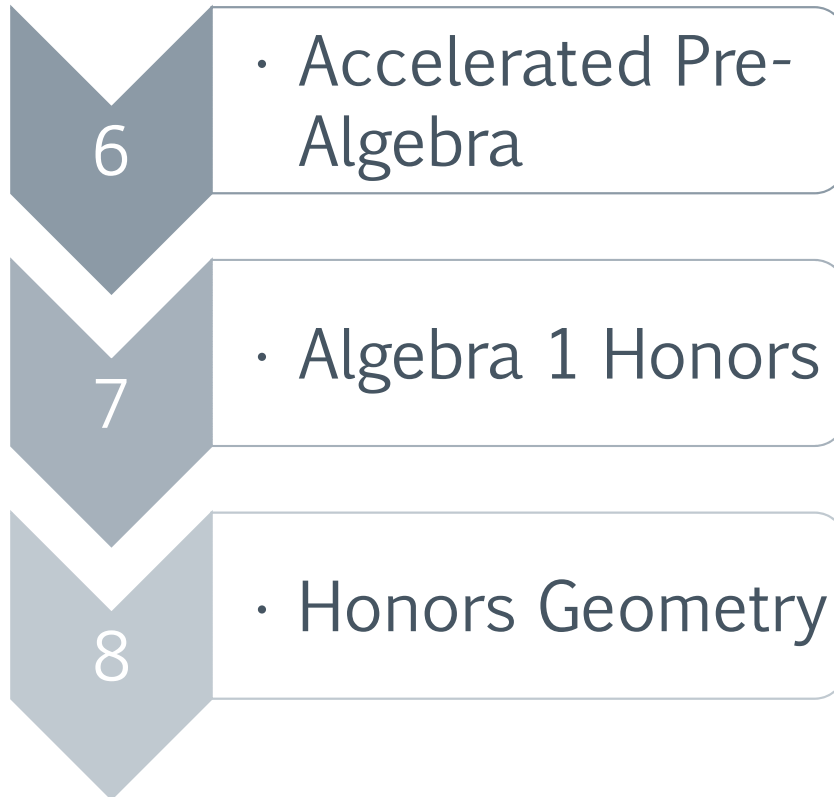
	6th	7th	8th	9th	10th	11th	12th	
Advanced Honors	Grade 6 will begin the implementation of the Advanced Honors math course sequence							
Honors	6300	7301	Alg 1 H	Geometry Honors	Alg 2 H	Pre Calc H	Calc AB Calc BC	
CP and CP ICR	6300	7302	Alg 1 CP	Geometry	Alg 2 CP	Alg 3 Trig Pre Calc	Pre Calc Calc	
Core and Core ICR			Alg 1A	Alg 1B	Geometry	Alg 2	Add'l Courses	
Pull Out Res O6	6306	7306	Alg 1A	Alg 1B	Geometry	Alg 2	Add'l Courses	

$\pi$

## A New Approach

- › There are students who exit Samsel Upper Elementary School's Grade 5 Program who excel at Mathematics.
- › Sayreville would like to embrace those students and provide an accelerated program designed to build on their current advanced skills and “move them to the next level.”
- › Sayreville Public Schools will implement, beginning in September 2015, an **Advanced Honors Program of Studies in Mathematics**.

## The New Program



- › Grade 6: Accelerated Pre-Algebra
  - This is typically a Grade 7 Advanced Course
  - It will still be offered in Grade 7
- › Grade 7: Algebra Honors
  - This is typically a Grade 8 Honors Course
  - It will still be offered in Grade 8
- › Grade 8: Honors Geometry
  - This is a High School Honors Level course

## The New Program

- › The Advanced Honors Program in Mathematics, which begins in Grade 6, allows those students who perform significantly above grade level the opportunity to challenge themselves in a higher level math course.
- › These students will enter the middle school and begin their program of studies with a course that is rigorous and challenging with very high expectations.
- › Students enrolled in this program **WILL EXPECT** an increase in the amount of and complexity of the homework assigned as well as exams and assessments that are more challenging than what they may be used to.



# Advanced Honors Program Progression

## GRADE

## COURSE

- |                          |   |
|--------------------------|---|
| › 6 <sup>th</sup> Grade  | › Accelerated Pre-Algebra               |
| › 7 <sup>th</sup> Grade  | › Algebra 1 Honors                      |
| › 8 <sup>th</sup> Grade  | › Geometry Honors                       |
| › 9 <sup>th</sup> Grade  | › Algebra 2 Honors                      |
| › 10 <sup>th</sup> Grade | › Pre-Calculus Honors                   |
| › 11 <sup>th</sup> Grade | › AP Calculus AB or AP Calculus BC      |
| › 12 <sup>th</sup> Grade | › Calculus III or Multivariate Calculus |

## Admission Requirements

- › In order to be considered for the Advanced Honors Program in Grade 6:
  - Submit a signed Application form acknowledging the course requirements and responsibilities for the student.
  - Admission to the program will be based on the following criteria:
    - › Summative score on the District Advanced Honors Mathematics Admission Test.
    - › Numerical grade as of June 1 in their current math course.
    - › Results from the teacher's Classroom Performance Survey.
    - › The students' record of attendance and any discipline records will also be taken into account.
- › **For this program there are no waivers.** A student's academic record and performance are the criteria for admission.



# The Complete Math Scope and Sequence

	6th	7th	8th	9th	10th	11th	12th
Advanced Honors	7301	Alg 1 H	Geometry Honors	Alg 2 H	Pre Calc H	Calc BC	Calc III??
Honors	6301	7301	Alg 1 H	Geometry Honors	Alg 2 H	Pre Calc H	Calc AB
CP	6302	7302	Alg 1 CP	Geometry	Alg 2 CP	Alg 3 Trig Pre Calc	Pre Calc Calc
Core and Core ICR			Alg 1A	Alg 1B	Geometry	Alg 2	Add'l Courses
Pull Out Res O6	6306	7306	Alg 1A	Alg 1B	Geometry	Alg 2	Add'l Courses

$\pi$

“The advancement and perfection of mathematics are intimately connected with the prosperity of the State.”

– Napoleon