Lake Bluff Middle School

Lake Bluff Schools DISTRICT 65

Math Course Sequence

6th Grade

Math 1	Advanced Math 1
CC6	**6/7**

7th Grade

Math 2	Advanced Math 2	Algebra
CC7	**7/8**	**ALGEBRA**

8th Grade

Math 3	Algebra	Advanced Algebra Trig Honors
CC8	**ALGEBRA**	**AATH**
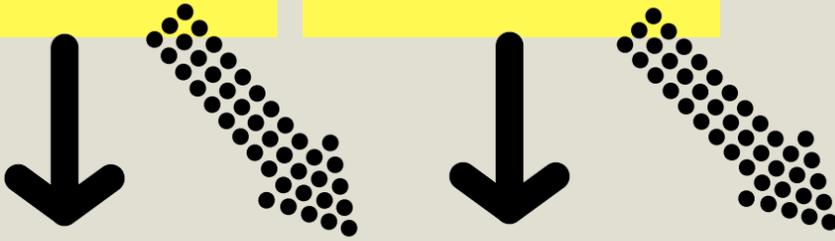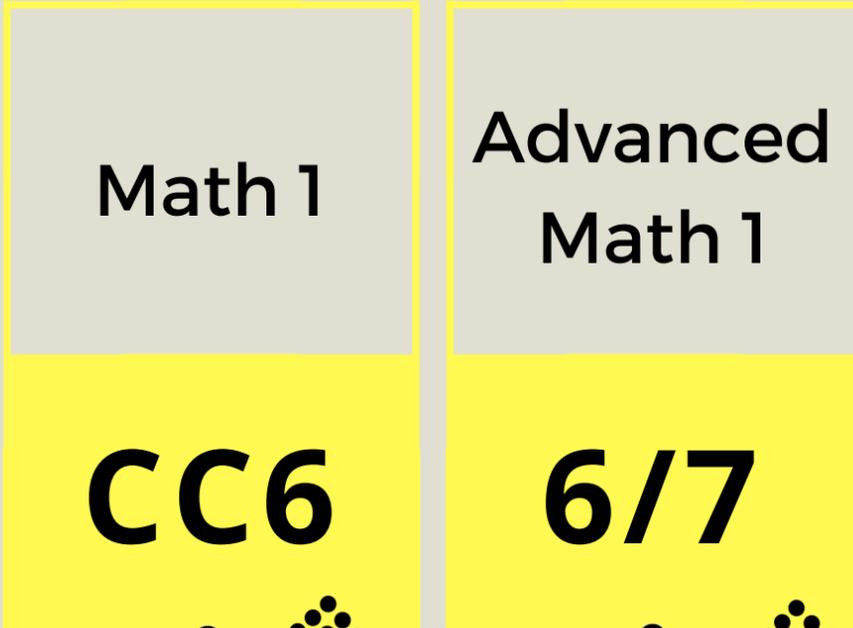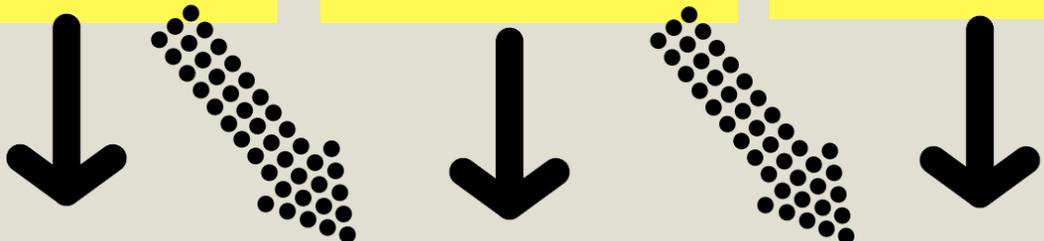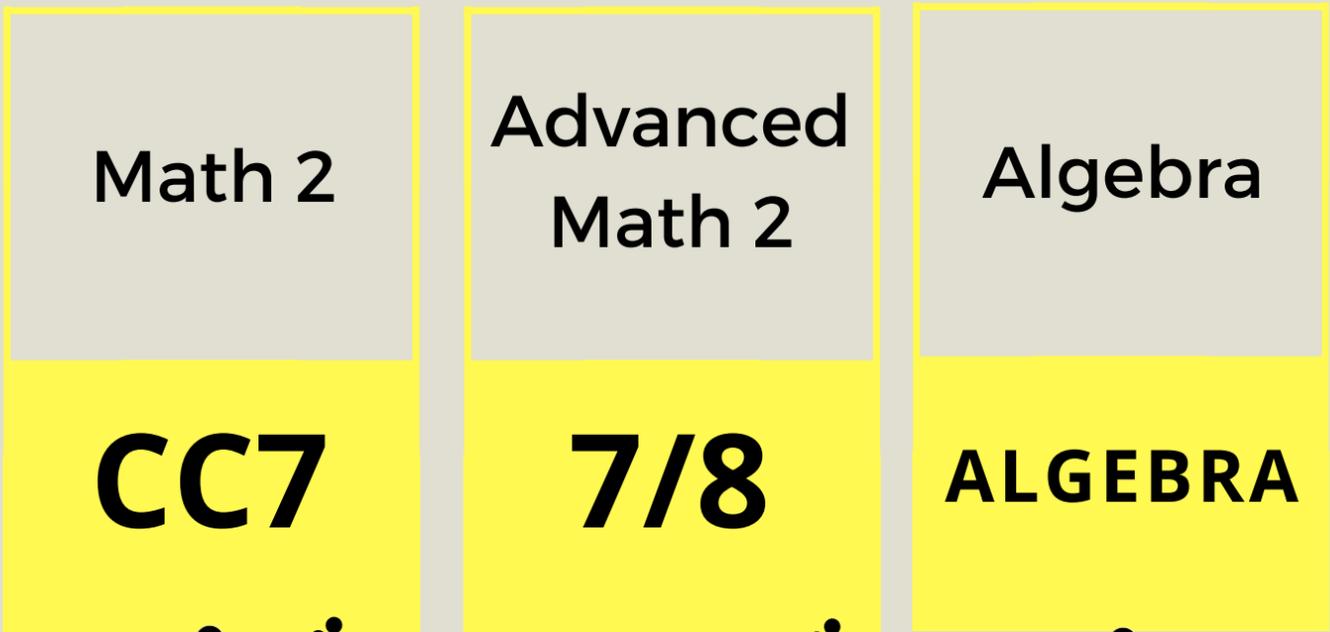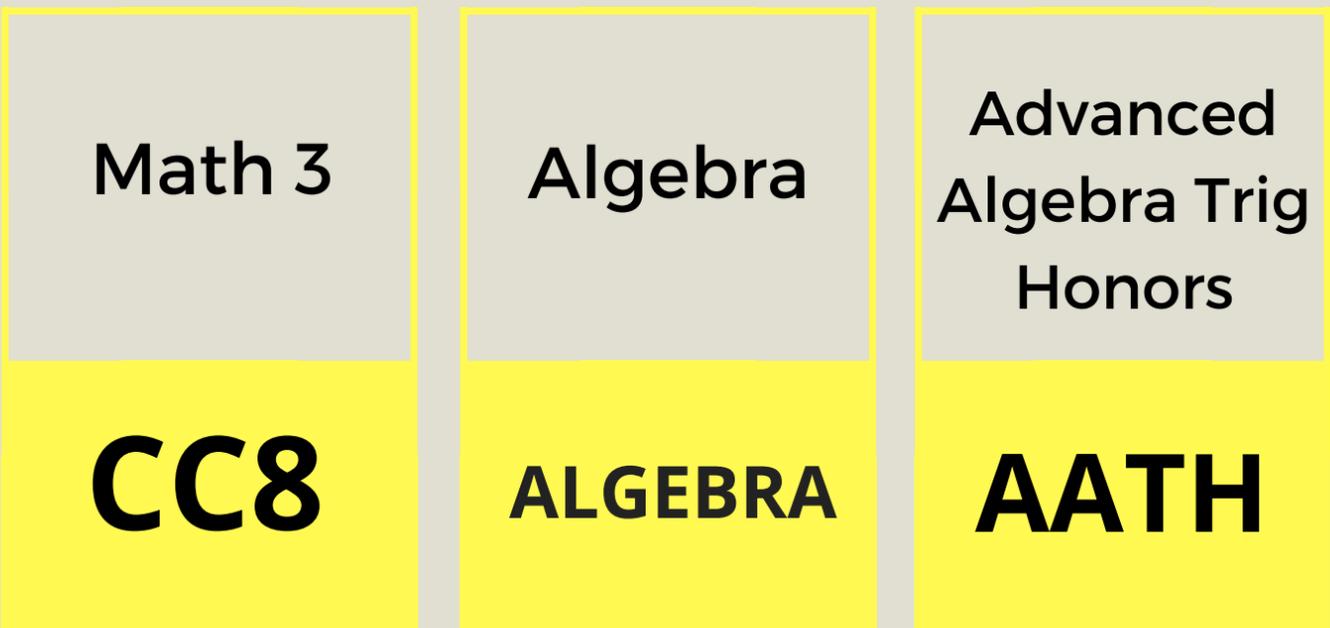
→ Projected Pathway

⋯► Alternate Pathway

Updated: July 2017

Math Course Descriptions

Math 1

Teaching and learning will focus on the 6th grade CCSS.   Topics include:
• proportional thinking and using concepts of ratio and rate to solve problems;
• extending the number to the system of rational numbers, including negative numbers and compare integer values;
• compute fluently using common factors and multiples;
• extend previous understandings to divide fractions by fractions;
• rational numbers including the four operations with fractions;
• writing, interpreting, solving and using expressions and 1-step equations with whole numbers;
• real-world mathematical problems involving area, surface area and volume, including the use of the coordinate plane;
• and developing understanding of statistical thinking.

Advanced Math 1

Teaching and learning will focus on the 6th grade CCSS and some 7th grade CCSS. Topics include:
• proportional thinking, scale drawings and using concepts of ratio and rate to solve problems
• operations with fractions to add, subtract, multiply and divide; extend understandings of rational numbers including the four operations of integers, fractions and percents
• conversions between fractions, decimals, and percents and using the concepts to solve problems
• real-world mathematical problems involving area, surface area and volume (rectangular prisms), including the use of the coordinate plane
• writing, interpreting, solving and using expressions and 1-step equations with rational numbers
• develop understanding of statistical thinking including inferences about a population and using probability models

Math 2

Teaching and learning will focus on the 7th grade CCSS. Topics include:
• proportional relationships, including scale drawings to solve real-world problems;
• operations and applications of fractions to add, subtract, multiply and divide;
• writing, interpreting, solving and using expressions and equations as solutions to problems;
• real-world mathematical problems involving angle measure, area, surface area and volume, including the use of the coordinate plane;
• writing, interpreting, solving and using expressions and equations as solutions to problems;
• statistics including inferences about a population and using probability models.

Advanced Math 2

Teaching and learning will focus on the 7th grade CCSS and 8th grade CCSS. Topics include:
• proportional relationships, including scale drawings to solve real-world problems;
• real-world mathematical problems involving angle measure, area, surface area and volume of 3D figures;
• transformations of figures;
• writing, interpreting, and solving multi-step equations, absolute value equations, and compound inequalities as solutions to problems;
• investigation of graphs using table of values and the coordinate plane;
• real numbers, including exponents, square roots, integer exponents, and scientific notation;
• percents and percent of change;
• statistics including inferences about a population, random sampling and compound events, scatter plots;

Algebra 1

Teaching mand learning will focus on the Algebra 1 CCSS. Topics include:
• linear equations, applications and graphs;
• quadratic equations, operations of polynomials, applications and graphs;
• radicals: simplifying, operations, applications;
• exponential functions & decay, operations of monomials;
• multiple methods to calculate slope & y-intercept, connections to rate and speed;
• data collection tables, patterns of growth, notation for sequencing;
• two-variable data, correlation coefficients, analyzing residual plots;
• parabola sketches, x-intercept, vertex and use of square root;
• linear & non-linear inequalities, word problems, graphs and analysis;
• speed and accuracy of each above mentioned skill;

AATH

This is a traditional Algebra 2 with Trigonometry course, aligned with the AATH course offered at Lake Forest High School. Students will extend their Algebra 1 learning in area of functions, systems, equation solving, factoring, quadratics and exponentials. Students will explore new concepts including radicals, conics, number theory, matrices, and trigonometry. A high level of independence and persistence is expected of students in this course.