GRADE and SUBJECT

Math 7 Curriculum Overview **eMath Instruction**

Time/Month	Standard(s)	Content	Skills
September (week 2) - September (week 4) 15 Days	NY - 7.RP.1 NY - 7.NS.2 (a-d)	Unit 1: Essential Review	- Multiplication and division - Divide fractions and decimals - Convert between fractions and decimals - Use fractions to write ratios and rates - Apply ratios and rates to real world situations - Using the calculator
September (week 5) - October (week 4) 18 days	NY - 7.NS.1 (a-d) NY - 7.NS.2 (a-d) NY - 7.NS.3	Unit 2: Operations with Signed Numbers	- Understand and define rational numbers - Add and subtract signed numbers (algebraically and graphically) - Multiply and divide signed numbers - Evaluate expressions using order of operations - Work with signed numbers on the calculator
October (week 5) - November (week 4) 16 days	NY - 7.RP.1 NY - 7.RP.2 (a-d) NY - 7.NS.3	Unit 3: Proportional Relationships	- Understand ratios in context - Write ratios as complex fractions - Compare equal fractions with cross multiplication - Solve ratio problems algebraically - Explain a proportional relationship - Solve proportions - Identify and create equations and graphs of proportional relationships
November (week 4) - December (week 3) 16 days	NY - 7.RP.3 NY - 7.NS.2 (c-d) NY - 7.NS.3 NY - 7.EE.2 NY - 7.EE.3	Unit 4: Percent	- Understand fractions of wholes - Convert fractions to percents and vice versa - Convert decimals to percents and vice versa - Use the percent proportion to solve problems - Solve percent application problems such as tip, tax, discount, commission, fees, interest - Find the percent increase or decrease - Find the percent error - Use the percent, whole, part relationship to solve for the unknown
January (week 2) - January (week 4) 14 days	NY - 7.EE.1 NY - 7.EE.2 NY - 7.EE.3	Unit 5: Linear Expressions	- Understand the properties of real numbers - Evaluate expressions after substituting a value for the variable(s) - Identify terms and types of expressions - Apply commutative and associative properties to create

			equivalent expressions - Apply the distributive property to create equivalent expressions - Identify and combine like terms - Simplify complex expressions - Factor binomials - Revisit percent increase and decrease
January (week 4) - February (week 2) 16 days	NY - 7.EE.3 NY - 7.EE.4 (a-b)	Unit 6: Linear Equations and Inequalities	- Review solving one step equations - Understand and use the properties of equality - Solve two step equations - Apply distributive property to rewrite a given equation to be a two step equation - Recognize structure to solve non-typical two step equations - Write a two step equation to represent a given real world situation - Solve word problems using two step equations - Solve two step inequalities - Write a two step inequality to represent a real world situation - Solve word problems using two step inequalities
February (week 4) - March (week 1) 10 days	NY - 7.SP.1 NY - 7.SP.3 NY - 7.SP.4	Unit 7: Statistics	- Identify statistical questions - Use statistical measures (range, mean, median, mode, maximum, minimum) to analyze data - Find the first and third quartiles of a given set of data - Use the quartiles to find the interquartile range (spread) of a given set of data - Construct a box plot - Identify outliers of a data set - Compare two samples of data
March (week 2) - March (week 4) 11 days	NY - 7.SP.8 (a-c)	Unit 8: Probability	- Define terms associated with probability - Find the probability of a compound event - Create the sample space for a given event - Construct a tree diagram to represent all possible outcomes of a compound event - Simulate compound events
March (week 4) - April (week 4)		State Exam Review	

GRADE and SUBJECT

April 21 - April 23		State Exam	
April (week 5) - May (week 2) 10 days	NY - 7.G.2 NY - 7.G.5	Unit 9: The Geometry of Angles and Triangles	- Identify points, lines, rays, and segments - Measure and classify angles - Identify a pair of angles as adjacent, complementary, or supplementary - Use angle pair relationships set up an equation and solve for an unknown value - Identify vertical angles and use their relationship to solve problems - Apply the angle relationship in triangles to find the unknown value
May (week 3) - May (week 5) 13 days	NY - 7.EE.4 NY - 7.G.1 NY - 7.G.3 NY - 7.G.4 NY - 7.G.6	Unit 10: Geometric Measurement	- Find the area and perimeter of rectangles, triangles, and trapezoids - Use a scale to find the actual dimensions of a given shape and its area and perimeter - Define a circle, radius, and diameter - Identify the radius and diameter of a circle and use their relationship to solve problems - Find the area and circumference of a circle - Identify cross sections of a given solid figure - Find the surface area of a given solid - Find the volume of a right prism
June (week 1) - June (week 2)		Final Exam Review	
June (week 3)		Final Exam	