Grade 5 Mathematics

The East Greenwich School District adopted the Model Curriculum, developed by the State of New Jersey. This curriculum is aligned with the Common Core State Standards and is organized into 5 units of study. Each unit contains specific learning goals aligned to grade level content standards that are to be taught over a six week time period. Once students complete each unit, a formative assessment is given to measure student proficiency on those targeted skills.

For more information on the Model Curriculum please visit:

http://www.state.nj.us/education/modelcurriculum/math/5u1.shtml

For more information on the Common Core State Standards please visit:

http://www.corestandards.org/about-the-standards/

For more information on the Math Common Core Standards please visit:
http://www.corestandards.org/Math/

Unit 1	September/October
Standard	**STUDENT LEARNING OBJECTIVES**
5.OA.1	Evaluate numerical expressions with parentheses, brackets or braces.
5.OA.2	Write numerical expressions when given a word problem or a scenario in words and use words to interpret numerical expressions.
5.NBT.1	Explain the “ten times” or 1/10 relationships for place values in multi-digit numbers moving right or left across the places.
5.NBT.2	Recognize and explain patterns of the number of zeros and the placement of the decimal point in a product or quotient when a number is multiplied or divided by powers of 10.
5.NBT.3	Compare decimals to thousandths based on the value of the digits in each place using the symbols >, =, < when presented as base ten numerals, number names, or expanded form.
5.NBT.4	Round a decimal to any place.
5.NBT.5	Use the standard algorithm to multiply 3-digit whole numbers by 1-digit whole numbers.
5.NBT.6	Calculate whole number quotients with 4-digit dividends and 2-digit divisors and explain answers with equations, rectangular arrays, and area models.
Resources: **Coming Soon!**	

Unit 2	November/December
Standard	**STUDENT LEARNING OBJECTIVES**
5.MD.3b	Measure volume by counting the total number of same size cubic units required to fill a figure without gaps or overlaps.
5.MD.4	Choose an appropriate cubic unit based on the attributes of the 3-dimensional figure you are measuring.
5.MD.5a	Show that the volume of a right rectangular prism found by counting all the unit cubes is the same as the formulas $V = l \times w \times h$ or $V = B \times h$.
5.MD.5b	Explain how both volume formulas relate to counting the cubes in one layer and multiplying that value by the number of layers (height).
5.MD.5c	Find the volume of a composite solid figure composed of two non-overlapping right rectangular prisms.
5.MD.5	Apply formulas to solve real world and mathematical problems involving volumes of right rectangular prisms and composites of same.
Resources: **Coming Soon!**	

Unit 3	January/February
Standard	**STUDENT LEARNING OBJECTIVES**
5.NBT.1	Describe the place value of numeral digits relative to both the place to the right and the place to the left (decimal to hundredths and whole numbers to billions).
5.NBT.7	Add, subtract, multiply, and divide decimals to hundredths using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; and, explain the reasoning used.
5.MD.1	Convert standard measurement units within the same system (e.g., centimeters to meters) to solve multi-step problems).
5.NF.1	Add and subtract fractions (including mixed numbers) with unlike denominators.
5.NF.2	Solve word problems involving adding or subtracting fractions including unlike denominators, and determine if the answer to the word problem is reasonable, using estimations with benchmark fractions.
5.NF.3	Interpret a fraction as a division of the numerator by the denominator; solve word problems where division of whole numbers leads to fractional or mixed number answers.
5.NBT.5	Multiply multi-digit whole numbers using the standard algorithm. (no calculators).
Resources: **Coming Soon!**	

Unit 4	March/April
Standard	**STUDENT LEARNING OBJECTIVES**
5.NF.4a	Multiply fractions by whole numbers and draw visual models or create story contexts. Interpret the product (***a/b***) x ***q*** as ***a*** parts of a whole partitioned into ***b*** equal parts added ***q*** times. In general, if ***q*** is a fraction ***c/d***, then (***a/b***) ***x*** (***c/d***) = ***a***(***1/b***) × ***c***(***1/d***) = ***ac*** × (***1/b***)(***1/d***) = ***ac***(***1/bd***) = ***ac/bd***.
5.NF.4b	Find the area of a rectangle with fractional side lengths by tiling unit squares and multiplying side lengths.
5.NF.5a 5.NF.5b	Explain how a product is related to the magnitude of the factors.
5.NF.6	Solve real world problems involving multiplication of fractions (including mixed numbers), using visual fraction models or equations to represent the problem.
5.NF.7a	Divide a unit fraction by a non-zero whole number and interpret by creating a story context or visual fraction model.
5.NF.7b	Divide a whole number by a unit fraction and interpret by creating a story context or visual fraction model.
5.NF.7c	Solve real world problems involving division of unit fractions by whole numbers or whole numbers by unit fractions.
Resources: **Coming Soon!**	

Unit 5	May/June
Standard	**STUDENT LEARNING OBJECTIVES**
5.NBT.7	Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition, subtraction, multiplication, and division.
5.G.1	Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates.
5.G.2	Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.
5.OA.3	Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. *For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence.* Explain informally why this is so.
5.G.3	Identify attributes of a two-dimensional shape based on attributes of the groups and categories in which the shape belongs.
5.G.4	Classify two- dimensional figures in a hierarchy based on properties.
5.MD.2	Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.*
5.NBT.5	Fluently multiply multi-digit whole numbers using the standard algorithm.
Resources: **Coming Soon!**	