

MARLBORO CENTRAL SCHOOL DISTRICT – CURRICULUM MAP

Subject: **Mathematics**

Grade: 6

Quarter 1

Instructional Days	Essential Questions	Assessment (Evidence)	Content (What Students Should Know)	Skills (What Students Should Be Able To Do)	N.Y.S. Performance Indicator	Resources
<p>September (10 days)</p>	<p>How do you locate rational numbers on a number line?</p> <p>How are integers and absolute value used in real world situations?</p> <p>How are decimals and fractions related?</p> <p>Understand the difference between a terminating and repeating decimal</p> <p>What are equivalent fractions?</p> <p>How do you reduce a fraction using the greatest common factor?</p>	<p>Daily Homework</p> <p>Test/Quizzes</p> <p>STAR Test</p> <p>Pre-test</p>	<p><u>Vocabulary</u> Integer</p> <p>Rational Number</p> <p>Positive Integer</p> <p>Negative Integer</p> <p>Absolute Value</p> <p>Opposite</p> <p>Annexing</p> <p>Numerator (dividend)</p> <p>Denominator (divisor)</p> <p>Equivalent Fractions</p> <p>Reciprocal</p> <p>Multiplicative Inverse</p> <p>Greatest Common Factor (GCF)</p> <p>Simplify/Lowest Terms</p>	<p>Understand that positive and negative numbers are used together to describe quantities having opposite directions or values. Use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.</p> <p>Understand ordering and absolute value of rational numbers.</p> <p>a. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. <i>For example, for an account balance of -30 dollars, write $-30 = 30$ to describe the size of the debt in dollars.</i></p> <p>Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p> <p>b. Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. <i>For example, use a visual fraction model to show $(2/3) \times 4 = 8/3$, and create a story context for this equation. Do the same with $(2/3) \times (4/5) = 8/15$. (In general, $(a/b) \times (c/d) = ac/bd$.)</i></p> <p>c. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.</p> <p>Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to -Use the distributive property to express a sum of two whole numbers 1–100 with a common</p>	<p>6.NS.C.5</p> <p>6.NS.C.7</p> <p>6.NS.A.1</p> <p>6.NS.B.4</p>	<p>Teacher-Created Materials</p> <p>EngageNY Curricular Materials</p> <p>Supplementary Materials</p> <p>ALEKS</p> <p>FRONTROW</p>

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<p>October (21 days)</p>	<p>How do you change an improper fraction to a mixed number?</p> <p>How do you change a mixed number to an improper fraction?</p> <p>How do you convert a mixed number to a decimal and an improper fraction to a decimal?</p> <p>What is the relationship between a fraction and its reciprocal?</p> <p>How do you divide a fraction by a whole number?</p> <p>How do you divide a fraction by another fraction?</p> <p>How do you divide a mixed number by a mixed number?</p> <p>When do we perform operations with fractions in real world situations?</p>	<p>Daily Homework</p> <p>Projects</p> <p>Test/Quizzes</p>	<p><u>Vocabulary</u></p> <p>Least Common Multiple (LCM)</p> <p>Improper Fraction</p> <p>Mixed Number</p>	<p>factor as a multiple of a sum of two whole numbers with no common factor.</p> <p>Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problems.</p>	<p>6.NS.A.1</p>	
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<p>October/November</p> <p>(8 days)</p>	<p>How do you add and subtract decimals (focus on whole numbers)?</p> <p>How do you multiply decimals?</p> <p>How do you divide decimals?</p> <p>How do you apply operations with decimals to real life situations?</p>	<p>Daily Homework</p> <p>Projects</p> <p>Test/Quizzes</p>	<p><u>Vocabulary</u></p> <p>Product</p> <p>Dividend</p> <p>Divisor</p> <p>Quotient</p> <p>Subtrahend</p> <p>Sum</p>	<p>Fluently divide multi-digit numbers using the standard algorithm.</p> <p>Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.</p>	<p>6.NS.B.2</p> <p>6.NS.B.3</p>	<p>Teacher-Created Materials</p> <p>EngageNY Curricular Materials</p> <p>Supplementary Materials</p> <p>ALEKS</p> <p>FRONTROW</p>

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Quarter 3

Instructional Days	Essential Questions	Assessment (Evidence)	Content (What Students Should Know)	Skills (What Students Should Be Able To Do)	N.Y.S. Performance Indicator	Resources
<p>Mid January/ February (22 days)</p>	<p>How are ratios used in real world to describe relationships between quantities?</p> <p>How are rates and ratios related?</p> <p>What is a unit rate and how do you calculate it?</p> <p>How do you calculate constant speed?</p>	<p>Daily Homework</p> <p>Projects</p> <p>Test/Quizzes</p>	<p><u>Vocabulary</u> Ratio</p> <p>Ratio Table</p> <p>Tape Diagram</p> <p>Rate</p> <p>Unit Rate</p>	<p>Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.</p> <p>Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship.</p> <p>Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.</p> <ol style="list-style-type: none"> a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios. b. Solve unit rate problems including those involving unit pricing and constant speed. <i>For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?</i> 	<p>6.RP.1</p> <p>6.RP.2</p> <p>6.RP.3</p>	<p>Teacher-Created Materials</p> <p>EngageNY Curricular Materials</p> <p>Supplementary Materials</p> <p>ALEKS</p> <p>FRONTROW</p>

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<p>Feb/March (18 days)</p>	<p>How do you convert from one unit to another within the same system?</p> <p>How are percents used in real world situations?</p> <p>How can we evaluate an expression using the order of operations?</p> <p>How can we identify the parts of an expression?</p> <p>How can we identify mathematical properties?</p> <p>How can we create equivalent expressions applying the properties of operations?</p>	<p>Daily Homework</p> <p>Projects</p> <p>Test/Quizzes</p>	<p><u>Vocabulary</u></p> <p>Proportion</p> <p>Cross Products</p> <p>Percents</p> <p>Unit Conversions</p> <p>Cup</p> <p>Gallon</p> <p>Pint</p> <p>Quart</p> <p>Ounce</p> <p>Fluid Ounce</p> <p>Liter</p> <p>Milliliter</p> <p>Base</p> <p>Exponent</p> <p>Order of Operations</p> <p>Commutative Property</p> <p>Associative Property</p> <p>Distributive Property</p> <p>Identity Property</p>	<p>c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.</p> <p>d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.</p> <p>Write and evaluate numerical expressions involving whole-number exponents.</p> <p>c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). <i>For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$.</i></p> <p>Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$.</p>	<p>6.RP.3</p> <p>6.EE.A.1 6.EE.A.2</p> <p>6.EE.A.3 6.EE.A.4</p>	<p>Teacher-Created Materials</p> <p>EngageNY Curricular Materials</p> <p>Supplementary Materials</p> <p>ALEKS</p> <p>FRONTROW</p>
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<p>May/June (30 days)</p> <p>NYS Testing Review</p>	<p>How can we solve integers using all operations?</p> <p>How can we solve one-step equations with positive and negative integers?</p>	<p>Daily Homework</p> <p>Projects</p> <p>Test/Quizzes</p>		<p>Apply and extend previous understandings of operations of integers to add, subtract, multiply and divide.</p> <p>Solve real-world and mathematical problems involving the four operations with rational numbers.</p> <p>Areas to revisit:</p> <ul style="list-style-type: none"> • Area of trapezoids & triangles • Difference between LCM/GCF • Volume • Dividing Fractions 	<p>7.NS.A.1</p> <p>7.NS.A.2</p> <p>7.NS.A.3</p>	<p>Engage NY</p> <p>NYS Common Learning Standards</p> <p>nylearns.org</p> <p>Supplementary Materials</p> <p>Castle Learning</p> <p>Websites: -IXL Math -Brainpop -Khan Academy -AAAMath.com</p> <p>ALEKS</p> <p>FRONTROW</p>

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