**GREAT NECK PUBLIC SCHOOLS**
*"Where Discovery Leads to Greatness"*
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Curriculum Profile: Math 6

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| Department | Mathematics | | |
| Course Name | Math 6 | | |
| Course Length | One Year | | |
| High School Credits | N/A | | |
| Description | Math 6 focuses on five areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; (4) deepening understanding of area, surface area and volume; and (5) developing understanding of simple probabilities and statistical thinking. | | |
| Target/eligible students | 6th graders on the general mathematics track | | |
| State Learning Standards Link(s) | NYS Math Standards | | pgs. 78-88 |
| Primary texts and materials | N-Gen Math 6 (Emathinstruction); Glencoe Mathematics Course 1 | | |
| Scope/Sequence | *Standards/ Themes | Description (and location within the state learning standards document) | |
| Unit 1: Whole Numbers | NY-6.NS | Students will compute fluently with multi-digit numbers and find common factors and multiples. | Pg. 80 |
| Unit 2: Fractions | NY-6.NS | Students will interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions. Students will use all operations of fractions to demonstrate problem solving skills. | Pg. 79 |

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| Unit 3: Decimals | NY-6.NS | Students will fluently add, subtract, multiply, and divide multi-digit decimals using a standard algorithm for each operation. | Pg. 80 |
| Unit 4: Positive and Negative Numbers | NY-6.NS | Students will apply and extend previous understandings of numbers to the system of rational numbers including understanding that positive and negative numbers are used together to describe quantities of opposite values. Students will understand rational numbers as locations on the number line. Students will be able to understand ordering and the absolute value of rational numbers. Using their knowledge of rational numbers, students will be able to solve real-world mathematical problems by graphing points on a coordinate plane. | Pgs. 80-81 |
| Unit 5:Expressions | NY-6.EE | Students will write and evaluate numerical expressions involving whole number exponents. Students will write, read, translate and evaluate expressions including variables. This will include application of properties to create equivalent expressions. | Pg. 82 |
| Unit 6: Equations | NY-6.EE | Students will be able to solve one step equations as a process of answering the question: which value makes the equation true? Students will be using substitution to answer this question as well as learning how to isolate a variable. Students will solve real world problems by writing equations in which they use variables to represent unknown numbers. | Pg. 83 |
| Unit 7: Inequalities | NY-6.EE | Students will be able to solve one step inequalities as a process of answering the question: which values makes the inequality true? Recognize that inequalities have infinitely many solutions; represent solutions of such inequalities on a number line. | Pg. .83 |
| Unit 8: Rates and Ratios | NY-6.RP | Students will understand the concept of ratio to describe a relationship between two quantities. They will use ratio and rate reasoning to solve real-world mathematical problems using several methods including graphing, ratio tables, and with whole number measurements. | Pg. 78 |
| Unit 9: Percents | NY-6.RP | Students will find the percent of a quantity as a rate per 100. They will solve percent proportions finding the whole given the part and percent and finding a part of a whole given the percent. | Pg. 78 |
| Unit 10: Geometry | NY-6.G | Students will solve real-world mathematical problems including area, surface area and volume. Students will recognize how to decompose composite figures into triangles and quadrilaterals while solving real world problems and using the coordinate plane. Students will be able to find volumes of right rectangular prisms and represent those 3-D shapes as nets. | Pg. 85 |

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| Unit 11: Statistics | NY-6. SP | Students will be able to recognize statistical questions while collecting, analyzing and interpreting data by looking at the distribution, measures of center and measures of variation then displaying the data in a variety of plots and graphs. | Pg. 86-87 |
| Unit 12: Probability | NY-6. SP | Students will investigate the likelihood or chance of simple events using theoretical and experimental probability. | Pg. 88 |
| Additional Notes: | | | |