Wertheimer Middle School

6th Grade Pre-AP Math Scope & Sequence

<table>
<tr>
<td>First Six Weeks
Comparing and Ordering Rational Numbers
• Generate equivalent forms of fractions, decimals and percents
• Classify whole numbers, positive/negative integers (whole numbers), and rational numbers using a visual representation
• Identify a number, its opposite, and its absolute value
Integer Operations and Integer Models
• Add, subtract, multiply and divide positive/negative integers fluently
• Represent integer operations with models and algorithms
• Balance a check register: deposits, withdrawals, and transfers</td>
<td>Fourth Six Weeks
Algebraic Properties, Algebraic Expressions, Order of Operations
• Equivalent numerical expressions using order of operations, including exponents and prime factorization
Algebraic Equations and Inequalities
• Write and represent solutions for one-variable, one-step equations and inequalities on number lines
• Model and solve two-step equations and inequalities
• Write corresponding real-world problems given equations or inequalities
• Determine if the given values make equations or inequalities true</td>
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<td>Second Six Weeks
Rational Number Operations
• Multiply and divide positive rational numbers fluently
• Extend representations for division to include fraction notation such as a/b represents the same number as a÷b
• Determine with and without computation, whether a quantity is increased or decreased when multiplied by a fraction, including values greater than or less than one</td>
<td>Fifth Six Weeks
Multiple Representations
• Tables, graphs, and equations in the form of y=kx or y=x+b
• Graph in all four quadrants using ordered pairs of rational numbers
• Identify independent/dependent quantities from tables and graphs
Geometry with Algebraic Equations
• Area of rectangles, parallelograms, trapezoids, triangles & volume of prisms
• Triangles and their properties including the sum of angles, relationship between lengths of sides and measures of angles
• Circles: circumference, area, pi
Data Analysis
• Summarize data: mean, median, mode
• Bar graphs, dot plots, stem-and-leaf plots, histograms, and box plots</td>
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<td>Third Six Weeks
Rates and Ratios
• Generate equivalent forms of fractions, decimals and percents
• Rates as the comparison by division of two quantities having different attributes, including rates as quotients
• Represent math problems with ratios and rates using scale factors, tables, graphs and proportions
• Generalize the critical attributes of similarity, including ratios within and between similar shapes</td>
<td>Sixth Six Weeks
Personal Financial Literacy
• Credit history and reports
• Various methods to pay for college
• Compare annual salary of various occupations and their levels of education or vocational training
Probability
• Solve problems using qualitative/quantitative predictions and comparisons
• Determine experimental probability</td>
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