

New Paltz Central School District

**Mathematics
Fifth Grade**

TIME	CONTENT	SKILLS	ASSESSMENTS
0000#0E0L100#0000	<p><u>UNIT 1: Number and Numeration (Place Value)</u></p> <ul style="list-style-type: none"> • What are different kinds of numbers? • How can numbers be different yet share characteristics in common? • Why is it important to know the value of a number? • How does the placement of a digit affect its value in a number? • How and why do you round numbers? • How and why do you estimate? ----- • The place value structure of the base 10 number system • The difference between factors and multiples of a number • The value of rounding and estimation as problem solving strategies 	<ul style="list-style-type: none"> • Read, write, and order numbers to millions • Round to the nearest place from hundredth to ten thousand • Estimate to solve problems and justify answers • Identify and use characteristics of numbers • Calculate multiples of whole numbers • Identify lowest common multiples of two numbers • Identify factors of a given number 	<ul style="list-style-type: none"> • Number and Numeration Unit assessment • Teacher observation • Student discussion • Teacher determined checkpoints

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<p style="writing-mode: vertical-rl; transform: rotate(180deg);"> 7000400 700304000 </p>	<p><u>UNIT 2: Operations (Computation Strategies)</u></p> <ul style="list-style-type: none"> • How are the four operations similar and different? • Why do we use inverse operations? ----- • Efficient multiplication and division strategies 	<ul style="list-style-type: none"> • Demonstrate fluency and apply number facts in addition, subtraction, and multiplication • Multiply 3 digit by 3 digit numbers • Divide 3 digit by 2 digit numbers • Recognize and apply order of operations when necessary 	<ul style="list-style-type: none"> • Operations unit assessment • Teacher observation • Student discussion • Teacher determined check points
<p style="writing-mode: vertical-rl; transform: rotate(180deg);"> 7000400 700304000 </p>	<p><u>UNIT 3: Fractions, Percents, and Decimals</u></p> <ul style="list-style-type: none"> • What is the relationship between fractions, decimals, and percents? ----- • Fractions, decimals, and percents are part of a whole • Percents are expressed as part of 100 • Decimals and percents may be expressed as fractions 	<ul style="list-style-type: none"> • Simplify (or express) fractions • Express mixed numbers as improper fractions and improper fractions as mixed numbers • Use a variety of strategies to add and subtract fractions and mixed numbers with like denominators • Add, subtract, multiply, and divide decimals to thousandths • Round decimals to the nearest hundredth 	<ul style="list-style-type: none"> • Fractions, Percents, and Decimals unit assessment • Teacher observation • Student discussion • Teacher determined check points

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<p style="writing-mode: vertical-rl; transform: rotate(180deg);">מדידת אורכים</p>	<p>UNIT 4: Measurement</p> <ul style="list-style-type: none"> • When is an exact measurement necessary? • When is an estimate appropriate? • How do we determine what unit of measurement is appropriate? ----- • Exact measurements are important but estimations are sometimes appropriate • Certain units of measurement are more appropriate for certain tasks 	<ul style="list-style-type: none"> • Identify customary and metric units of length • Convert measurements within a given system • Accurately use a ruler to measure to the nearest inch, 1/2, 1/4, or 1/8 inch or to the nearest centimeter • Find the perimeter of a figure given its measurements 	<ul style="list-style-type: none"> • Measurement unit assessment • Teacher observation • Student discussion • Teacher determined check points
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">השוואת צורות</p>	<p>UNIT 5: Geometry</p> <ul style="list-style-type: none"> • How do we classify polygons? • What is the difference between similar figures and congruent figures? ----- • Polygons are classified by the characteristics of sides and angles • Determine symmetry, similarity, and congruency of polygons 	<ul style="list-style-type: none"> • Distinguish between regular and irregular polygons • Classify quadrilaterals and triangles by properties of their sides and angles • Identify similar triangles and the ratio of their corresponding parts • Identify congruent triangles and their corresponding parts • Use known angles of a triangle to find an unknown angle • Identify and draw lines of symmetry • Accurately measure lengths and angles using the appropriate tool • Draw angles using a protractor • Collect and display data in a line graph to illustrate changes over time • Make predictions and form conclusions based on graphs • Create geometric patterns 	<ul style="list-style-type: none"> • Geometry unit assessment • Teacher observation • Student discussion • Teacher determined checkpoints


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M a r c h - A p r i l	<p><u>UNIT 6: Coordinate Geometry</u></p> <ul style="list-style-type: none"> • How does plotting points on a coordinate grid enable us to identify and classify geometric shapes? ----- • A coordinate grid contains two axes, the x axis and the y axis • The horizontal axis, or the x axis, tells us how far to the right or left a point is located • The vertical axis, or y axis, tells us how far up or down a point is located on the coordinate grid 	<ul style="list-style-type: none"> • Locate and plot points on a coordinate grid to form geometric shapes • Locate and plot points on a coordinate grid in order to identify and classify basic geometric shapes • Calculate the perimeter of basic geometric shapes drawn on a coordinate grid 	<ul style="list-style-type: none"> • Coordinate Geometry unit assessment • Teacher observation • Student discussion • Teacher determined checkpoints
M a y	<p><u>UNIT 7: Probability</u></p> <ul style="list-style-type: none"> • What is the difference between possible and probable? ----- • Probability of an event tells us how often an event is likely to happen over many repetitions 	<ul style="list-style-type: none"> • Interpret probability as a measure of how often an event will occur • Determine possible outcomes for an event • Express probabilities as fractions/ratios • Record experiment results using fractions/ratios • Formulate conclusions and predictions from graphs depicting experiment results 	<ul style="list-style-type: none"> • Probability unit assessment • Teacher observation • Student observation • Teacher determined checkpoints

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	<p>UNIT 8: Algebra</p> <ul style="list-style-type: none"> How do we use letters and symbols to represent numbers in numeric expressions or number sentences? ----- Numbers can be expressed using letters and symbols The order of operations must be followed in order to correctly solve an equation 	<ul style="list-style-type: none"> Express verbal expressions as algebraic expressions (2 more than a number = $n+2$, 2 less than a number = $n-2$, twice a number is expressed as $2n$) Substitute assigned values into variable expressions and solve using order of operations $6 \times Y + 2$ $6 = 4$ $(6 \times 4) + 2$ $24 + 2$ Solve simple one step equations using basic whole number facts $6 + X = 10$ $\begin{array}{r} -6 \\ \hline X = 4 \end{array}$ Solve and explain simple one-step equations using inverse operations $6X = 12$ $\begin{array}{r} \div 6 \\ \hline X = 2 \end{array}$ 	<ul style="list-style-type: none"> Algebra unit assessment Teacher observation Student discussion Teacher determined checkpoints
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