

Grade 5/6 Compacted Mathematics Concepts and Topics

Week	Marking Period 1 (Grade 5 Content)	Marking Period 2 (Grade 6 Content)
1	<ul style="list-style-type: none"> <li>• Multiplication of a whole number and a fraction (partitive, whole number products): problem solving, length models, number line models, set models</li> <li>• Multiplication as resizing</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Understanding Ratios and Rates</b> <ul style="list-style-type: none"> <li>○ Describe, recognize, and represent ratio relationships in a variety of representations</li> <li>○ Explain and classify different types of ratios, including rate and unit rate</li> </ul> </li> </ul>
2	<ul style="list-style-type: none"> <li>• Multiplication of a fraction by a fraction (numerator of one factor is a multiple of the denominator of the other factor): reasoning, problem solving</li> <li>• Multiplication as resizing</li> <li>• Multiplication fluency (multi-digit whole numbers): standard algorithm</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Understanding Ratios and Rates</b> <ul style="list-style-type: none"> <li>○ Interpret problems with ratios, including unit rates</li> </ul> </li> <li>• <b>Application of Ratios and Rates</b> <ul style="list-style-type: none"> <li>○ Create, interpret, and find missing values in tables of equivalent ratios</li> <li>○ Display a series of equivalent ratios on a coordinate grid</li> </ul> </li> </ul>
3	<ul style="list-style-type: none"> <li>• Multiplication of a fraction by a fraction (both factors <math>&lt;1</math>; one factor <math>&gt;1</math>): problem solving, area models</li> <li>• Multiplication as resizing</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Application of Ratios and Rates</b> <ul style="list-style-type: none"> <li>○ Solve rate and ratio problems, including unit rate, using multiple representations</li> <li>○ Convert customary and metric units using ratio reasoning</li> </ul> </li> </ul>
4	<ul style="list-style-type: none"> <li>• Multiplication of a fraction by a fraction (both factors <math>&gt;1</math>, including mixed numbers): problem solving, area models</li> <li>• Multiplication as resizing</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Application of Ratios and Rates</b> <ul style="list-style-type: none"> <li>○ Describe and compare ratios as a fraction, decimal, and percent</li> <li>○ Solve percent problems involving finding the part or the whole</li> </ul> </li> <li>• <b>Division of Fractions</b> <ul style="list-style-type: none"> <li>○ Divide fractions by whole numbers</li> </ul> </li> </ul>
5	<ul style="list-style-type: none"> <li>• Area: rectangles with fractional side lengths</li> <li>• Multiplication of a whole number and a fraction (partitive, fraction products)</li> <li>• Multiplication as resizing</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Division of Fractions</b> <ul style="list-style-type: none"> <li>○ Divide whole numbers by fractions</li> <li>○ Divide fractions by unit fractions</li> <li>○ Divide a fraction by a fraction</li> </ul> </li> </ul>
6	<ul style="list-style-type: none"> <li>• Division of a unit fraction by a non-zero whole number or a whole number by a unit fraction: visual fraction models, relationship between multiplication and division, equations, word problems</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Division of Fractions</b> <ul style="list-style-type: none"> <li>○ Reason about the inverse relationship between division and multiplication of fractions</li> <li>○ Use reasoning about the unit rate to develop understanding of the standard algorithm for dividing fractions</li> </ul> </li> </ul>
7	<ul style="list-style-type: none"> <li>• Division of a unit fraction by a non-zero whole number or a whole number by a unit fraction: visual fraction models, relationship between multiplication and division, equations, word problems</li> <li>• Fractions as division of numerator by denominator: visual fraction models, equations, word problems</li> <li>• Measurement data: line plots ( , , of a unit)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Multi-Digit Computation</b> <ul style="list-style-type: none"> <li>○ Apply place value understanding to develop understanding of the standard algorithm for division</li> <li>○ Solve word problems using the standard algorithm for division</li> </ul> </li> </ul>
8	<ul style="list-style-type: none"> <li>• Multiplication of decimals (to hundredths): models, drawings, written method, place value strategies, properties of operations</li> <li>• Division of decimals (to hundredths): place value strategies, properties of operations</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Multi-Digit Computation</b> <ul style="list-style-type: none"> <li>○ Multiply decimals using fractions and the standard algorithm</li> <li>○ Divide decimals by reasoning about place value and using the standard algorithm</li> </ul> </li> </ul>
9	<p>Division of decimals (to hundredths): place value strategies, properties of operations                      Addition, subtraction, multiplication, division of decimals (to hundredths): place value strategies, properties of operations                      Word problems (multi-step): conversion of measurement units (within a given measurement system)</p>	<ul style="list-style-type: none"> <li>• <b>Multi-Digit Computation</b></li> </ul>

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Grade 5/6 Compacted Mathematics Concepts and Topics

Week	Marking Period 3 (Grade 6 Content)	Marking Period 4 (Grade 6 Content)
1	<ul style="list-style-type: none"> <li>Extending the Number Line                             <ul style="list-style-type: none"> <li>Understand that positive and negative integers are used together to describe quantities and values</li> <li>Recognize that positive and negative rational numbers are used together to describe quantities having opposite directions or values, and reason about the meaning of 0 in real-world contexts</li> <li>Recognize and position a number, its opposite, and the opposite of the opposite on a horizontal and vertical number line diagram</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Relationships between Variables                             <ul style="list-style-type: none"> <li>Analyze the relationship between two variables to choose an independent variable and dependent variable</li> <li>Reason about equations in two variables and the solutions</li> <li>Represent the relationship between the independent and dependent variables on a table and a graph</li> </ul> </li> </ul>
2	<ul style="list-style-type: none"> <li>Order and Absolute Value                             <ul style="list-style-type: none"> <li>Order rational numbers and interpret comparisons on a number line</li> <li>Describe absolute value of a rational number as the distance from 0 on a number line and interpret the magnitude of a number by absolute value</li> <li>Distinguish comparisons of absolute value from statements about order</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Relationships between Variables                             <ul style="list-style-type: none"> <li>Write equations to model real-world situations</li> </ul> </li> <li>Relating Area and Volume                             <ul style="list-style-type: none"> <li>Explore rectangles and the attributes of other two-dimensional figures</li> <li>Develop the area formulas for right triangles, parallelograms, and triangles</li> </ul> </li> </ul>
3	<ul style="list-style-type: none"> <li>Coordinate Relationships                             <ul style="list-style-type: none"> <li>Identify parts of the coordinate plane and name and locate points using ordered pairs on the coordinate grid</li> <li>Reason about the relationship between coordinates reflected over the x- and y- axes</li> <li>Find horizontal and vertical distances on the coordinate plane using absolute value</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Relating Area and Volume                             <ul style="list-style-type: none"> <li>Determine the area of special quadrilaterals, polygons, and composite figures using decomposition and composition</li> <li>Model volume</li> </ul> </li> </ul>
4	<ul style="list-style-type: none"> <li>Coordinate Relationships                             <ul style="list-style-type: none"> <li>Use the coordinate plane to graph geometric shapes</li> </ul> </li> <li>Multi-Digit Computation                             <ul style="list-style-type: none"> <li>Fluently add, subtract, multiply, and divide multi-digit decimals</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Relating Area and Volume                             <ul style="list-style-type: none"> <li>Examine the relationship between the area of the base and the height of a prism to derive a formula for volume</li> <li>Reason about and apply the volume formula</li> </ul> </li> <li>Surface Area                             <ul style="list-style-type: none"> <li>Construct three-dimensional figures using nets</li> </ul> </li> </ul>
5	<ul style="list-style-type: none"> <li>Exponents                             <ul style="list-style-type: none"> <li>Identify and model the relationship between exponents and repeated multiplication</li> <li>Write and evaluate numerical expressions involving whole-number exponents</li> </ul> </li> <li>Introducing Algebraic Expressions                             <ul style="list-style-type: none"> <li>Create, interpret, and evaluate numerical expressions using order of operations</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Surface Area                             <ul style="list-style-type: none"> <li>Use nets to determine the surface area of three-dimensional figures</li> </ul> </li> </ul>
6	<ul style="list-style-type: none"> <li>Introducing Algebraic Expressions                             <ul style="list-style-type: none"> <li>Reason about situations to interpret, create, and evaluate algebraic expressions</li> <li>Create and evaluate an expression for an unknown based on a context</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Multi-Digit Computation                             <ul style="list-style-type: none"> <li>Use the standard algorithm to fluently add, subtract, multiply, divide multi-digit decimals and divide whole numbers</li> </ul> </li> <li>Statistical Questions                             <ul style="list-style-type: none"> <li>Explore and reason about data displays</li> <li>Distinguish between statistical and non-statistical questions</li> </ul> </li> </ul>
7	<ul style="list-style-type: none"> <li>Properties and Equivalency                             <ul style="list-style-type: none"> <li>Identify common factors and common multiples of a pair of numbers; including the greatest common factor and least common multiple</li> <li>Identify the common factors from two whole numbers and rewrite the sum using the greatest common factor</li> <li>Create multiple representations of equivalent algebraic expressions</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Statistical Questions                             <ul style="list-style-type: none"> <li>Write examples of statistical questions</li> </ul> </li> <li>Analyzing Data Distributions                             <ul style="list-style-type: none"> <li>Reason about and determine measures of center and spread using data sets</li> </ul> </li> </ul>
8	<ul style="list-style-type: none"> <li>Equations and Inequalities                             <ul style="list-style-type: none"> <li>Reason about the role of the variable by examining the structure of equivalent expressions</li> <li>Solve equations, precisely state the meaning of the variable, and represent the solution</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Analyzing Data Distributions                             <ul style="list-style-type: none"> <li>Explore the mean absolute deviation</li> <li>Construct and interpret histograms and box plots to analyze a data set</li> </ul> </li> </ul>
9	<ul style="list-style-type: none"> <li>Equations and Inequalities</li> </ul>	<ul style="list-style-type: none"> <li>Analyzing Data Distributions                             <ul style="list-style-type: none"> <li>Identify the data display that best describes measures of center, spread, and the overall shape of the distribution</li> </ul> </li> </ul>

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