

HUDSONVILLE PUBLIC SCHOOLS ELEMENTARY COURSE FRAMEWORK



COURSE/SUBJECT

Fifth Grade Math

UNIT PACING Names of units and approximate pacing	LEARNING TARGETS Students will be able to...	STANDARD Which Common Core standards does this address?	ASSESSMENTS Which assessments are given to determine student growth?
Math Expression Common Core Unit 1: Addition and Subtraction with Fractions <i>September/October</i>	<ul style="list-style-type: none"> • I can add fractions and mixed numbers with unlike denominators by finding common denominators. • I can subtract fractions and mixed numbers with unlike denominators by finding common denominators. • I can add and subtract fractions and mixed numbers with unlike denominators to solve word problems. • I can tell if my answer is reasonable by using mental math and estimation. 	5.NF.1 5.NF.2 5.MD.2	Unit 1 Quick Quizzes Unit 1 Assessment
Math Expression Common Core Unit 2: Addition and Subtraction with Decimals <i>October/November</i>	<ul style="list-style-type: none"> • I can see that in a multi-digit number, a digit in one place is ten times what it represented in the place to its right. • I can see that in a multi-digit number, a digit in one place is 1/10 of what it would be in the place to its left. • I can read and write decimals to thousandths in digits. • I can read and write decimals to thousandths in words. • I can read and write decimals to thousandths in expanded form. • I can compare two decimals to thousandths using $<$, $>$, $=$. • I can round decimals to any place. • I can add, subtract, multiply, and divide decimals to the hundredths, using hands-on math tools, drawings, place value strategies, properties of operations, and the relationship between addition and subtraction. • I can connect the strategy I used to a written method and explain why I did what I did. 	5.NBT.1 5.NBT.3a 5.NBT.3b 5.NBT.4 5.NBT.7	Unit 2 Quick Quizzes Unit 2 Assessment

<p>Math Expression Common Core</p> <p>Unit 3: Multiplication and Division with Fractions</p> <p><i>November/December</i></p>	<ul style="list-style-type: none"> • I can add and subtract fractions and mixed numbers with unlike denominators by finding common denominators. • I can add and subtract fractions and mixed numbers with unlike denominators to solve word problems. • I can tell if my answer is reasonable by using mental math and estimation. • I can understand a fraction as a division problem. • I can solve division word problems, where the answer is a fraction or mixed number, by using visual fraction models or equations to help me solve the problem. • I can multiply a fraction by a whole number by drawing a picture of the whole number broken into the correct number of parts. • I can multiply a fraction by a fraction by drawing a picture. • I can multiply a fraction by a whole number by multiplying the numerator by the whole number and dividing by the denominator. • I can multiply a fraction by a fraction by multiplying the numerators together and multiplying the denominators together. • I can write a word problem to match a fraction multiplication problem. • I can multiply the sides of a rectangle to find the area when the side lengths are fractions. • I can show fraction products as rectangular areas. • I can explain why multiplying a number by a fraction greater than 1 gives me an answer greater than the number I started with. • I can explain why multiplying a number by a fraction less than 1 gives me an answer less than the number I started with. • I can understand that when I multiply a fraction by n/n to find an equivalent fraction it is the same as multiplying the fraction by 1. • I can solve real world multiplication problems with fractions and mixed numbers, using visual fraction models or equations. • I can divide a unit fraction by a whole number. • I can write a word problem to match a unit fraction divided by a whole number problem. • I can use a visual fraction model to show the answer to a problem where a unit fraction is divided by a whole number. • I can use the relationship between multiplication and division to explain $1/3$ divided by $4 = 1/12$ because $(1/12) \times 4 = 1/3$. • I can divide a whole number by a unit fraction. • I can write a word problem to match a whole number divided by a unit fraction problem. • I can use a visual fraction model to show the answer to problem where a whole number is divided by a unit fraction. • I can use the relationship between multiplication and division to explain 4 divided by $1/5 = 20$ because $20 \times (1/5) = 4$. • I can solve real world problems involving division of unit fractions by whole numbers by using visual fraction models and equations. • I can solve real world problems involving division of whole numbers by unit fractions by using visual fraction models and equations. 	<p>5.NF.1 5.NF.2 5.NF.3 5.NF.4a 5.NF.4b 5.NF.5a 5.NF.5b 5.NF.6 5.NF.7a 5.NF.7b 5.NF.7c 5.MD.2</p>	<p>Unit 3 Quick Quizzes</p> <p>Unit 3 Assessment</p>
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<p>Math Expression Common Core</p> <p>Unit 4: Multiplication with Whole Numbers and Decimals</p> <p><i>January</i></p>	<ul style="list-style-type: none"> • I can see that in a multi-digit number, a digit in one place is ten times what it represented in the place to its right. • I can see that in a multi-digit number, a digit in one place is 1/10 of what it would be in the place to its left. • I can explain patterns in the number of zeros in the answer when I multiply by a power of ten. • I can explain patterns in the placement of the decimal point when I multiply a decimal by a power of ten. • I can compare two decimals to thousandths using $<$, $>$, $=$. • I can round decimals to any place. • I can fluently multiply multi-digit numbers using the standard algorithm. • I can add, subtract, multiply, and divide decimals to the hundredths, using hands-on math tools, drawings, place value strategies, properties of operations, and the relationship between addition and subtraction. • I can connect the strategy I used to a written method and explain why I did what I did. • I can compare the size of a product to the size of one factor using the size of the other factor, without doing the multiplication problem. 	<p>5.NBT.1 5.NBT.2 5.NBT.3b 5.NBT.4 5.NBT.5 5.NBT.7 5.NF.5a 5.NF.5b</p>	<p>Unit 4 Quick Quizzes</p> <p>Unit 4 Assessment</p>
<p>Math Expression Common Core</p> <p>Unit 5: Division with Whole Numbers and Decimals</p> <p><i>February</i></p>	<ul style="list-style-type: none"> • I can see that in a multi-digit number, a digit in one place is ten times what it represented in the place to its right. • I can see that in a multi-digit number, a digit in one place is 1/10 of what it would be in the place to its left. • I can explain patterns in the number of zeros in the answer when I multiply by a power of ten. • I can explain patterns in the placement of the decimal point when I multiply a decimal by a power of ten. • I can compare two decimals to thousandths using $<$, $>$, $=$. • I can divide [up to] a 4-digit number by [up to] a 2-digit number using place value strategies, properties of operations, and the relationship between multiplication and division. • I can draw and explain a division problem by using equations, rectangular arrays, and/or area models. • I can add, subtract, multiply, and divide decimals to the hundredths, using hands-on math tools, drawings, place value strategies, properties of operations, and the relationship between addition and subtraction. • I can connect the strategy I used to a written method and explain why I did what I did. 	<p>5.NBT.1 5.NBT.2 5.NBT.3b 5.NBT.6 5.NBT.7</p>	<p>Unit 5 Quick Quizzes</p> <p>Unit 5 Assessment</p>

<p>Math Expression Common Core</p> <p>Unit 6: Operations and Problem Solving</p> <p><i>March</i></p>	<ul style="list-style-type: none"> • I can use parentheses, brackets, or braces in numerical expressions. • I can evaluate expressions with parentheses, brackets, or braces. • I can round decimals to any place. • I can fluently multiply multi-digit numbers using the standard algorithm. • I can divide [up to] a 4-digit number by [up to] a 2-digit number using place value strategies, properties of operations, and the relationship between multiplication and division. • I can draw and explain a division problem by using equations, rectangular arrays, and/or area models. • I can add, subtract, multiply, and divide decimals to the hundredths, using hands-on math tools, drawings, place value strategies, properties of operations, and the relationship between addition and subtraction. • I can connect the strategy I used to a written method and explain why I did what I did. • I can add and subtract fractions and mixed numbers with unlike denominators by finding common denominators. • I can add and subtract fractions and mixed numbers with unlike denominators to solve word problems. • I can tell if my answer is reasonable by using mental math and estimation. • I can multiply a fraction by a whole number and a fraction by a fraction by drawing a picture. • I can multiply a fraction by a fraction by multiplying the numerators together and multiplying the denominators together. • I can compare the size of a product to the size of one factor using the size of the other factor, without doing the multiplication problem. • I can solve real world multiplication problems with fractions and mixed numbers, using visual fraction models or equations. • I can apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. 	<p>5.OA.1 5.NBT.4 5.NBT.5 5.NBT.6 5.NBT.7 5.NF.1 5.NF.2 5.NF.4a 5.NF.4b 5.NF.5a 5.NF.5b 5.NF.6 5.NF.7 5.NF.7a 5.NF.7b 5.NF.7c</p>	<p>Unit 6 Quick Quizzes</p> <p>Unit 6 Assessment</p>
<p>Math Expression Common Core</p> <p>Unit 7: Algebra, Patterns, and Coordinate Graphs</p> <p><i>April</i></p>	<ul style="list-style-type: none"> • I can use parentheses, brackets, or braces in numerical expressions. • I can evaluate expressions with parentheses, brackets, or braces. • I can write and interpret simple expressions without finding the answer. For example, write “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. • I can see that $3 \times (18,932 + 921)$ is three times as large as $18,932 + 921$. • I can produce numerical patterns using two given rules. • I can find relationships between corresponding terms. • I can form ordered pairs from the two patterns. • I can graph ordered pairs on a coordinate plane. • I can use a coordinate grid with a vertical x-axis and a horizontal y-axis to find ordered pairs (x, y). • I can understand that the first number in an ordered pair is the x-coordinate and tells me how far vertically from the y-axis the point is located. • I can understand that the second number in an ordered pair is the y-coordinate and tells me how far horizontally from the x-axis the point is located. • I can graph points in the first quadrant of the coordinate plane (both coordinates are positive), in real world and math problems. • I can find and name points on the coordinate grid. 	<p>5.OA.1 5.OA.2 5.OA.3 5.G.1 5.G.2</p>	<p>Unit 7 Quick Quizzes</p> <p>Unit 7 Assessment</p>

<p>Math Expression Common Core</p> <p>Unit 8: Measurement and Data</p> <p><i>May/June</i></p>	<ul style="list-style-type: none"> • I can find the area of a rectangle with fractional side lengths by tiling it with unit squares. • I can show that the area of the rectangle is the same as multiplying the side lengths. • I can multiply the sides of a rectangle to find the area when the side lengths are fractions. • I can show fraction products as rectangular areas. • I can convert measurements within the metric system and within the customary system. • I can use conversions to solve multi-step, real word problems. • I can make a line plot to display measurements in fractions. • I can use what I know about fraction addition, subtraction, multiplication and division to solve problems using the data on a line plot. • I can understand that a cube with the side length 1 unit, “unit cube,” has 1 cubic unit of volume. • I can understand that a “unit cube” can be used to measure volume. • I can understand that when a solid figure is filled with 25 unit cubes, it has the volume of 25 cubic units. • I can measure volume by counting unit cubes (cubic cm, cubic in, cubic ft, and generic cubic units). • I can find the volume of a rectangular prism (with whole number side lengths) by packing it with unit cubes. • I can show that the volume is the same as it would be if I multiplied the three edge lengths. • I can show that the volume is the same as it would be if I multiplied height by the area of the base. • I can use the formulas $V = l \times w \times h$ and $V = b \times h$ to find the volume of a rectangular prism with whole number side lengths in real world and math problems. 	<p>5.NF.4b 5.MD.1 5.MD.2 5.MD.3a 5.MD.3b 5.MD.4 5.MD.5a 5.MD.5b</p>	<p>Unit 8 Quick Quizzes</p> <p>Unit 8 Assessment</p>
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