HUDSONVILLE PUBLIC SCHOOLS ELEMENTARY COURSE FRAMEWORK

COURSE/SUBJECT | **Fourth 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: Place Value and Multi-digit Addition and Subtraction *September/October*	• I can solve multi-step word problems using +, -, x, &, /. • I can write an equation to show a word problem and use a letter in place of the unknown number. • I can determine if an answer is reasonable using mental math or estimation. • I can see that in a multi-digit number, a digit in one place is ten times larger than what it represented in the place to its right. • I can read and write multi-digit whole numbers using digits, number names and expanded form. • I can compare 2 multi-digit numbers using <, >, =. • I can use what I know about place value to round multi-digit numbers to any place. • I can fluently add multi-digit numbers using the standard algorithm. • I can fluently subtract multi-digit numbers using the standard algorithm. • I can use +, -, x, & / to solve word problems with distance, time, liquid volume, mass, and money.	4.OA.3 4.NBT.1 4.NBT.2 4.NBT.3 4.NBT.4 4.MD.2	Unit 1 Quick Quizzes Unit 1 Assessments
Math Expression Common Core Unit 2: Multiplication with Whole Numbers *October/November*	• I can solve multi-step word problems using +, -, x, &, /. • I can write an equation to show a word problem and use a letter in place of the unknown number. • I can determine if an answer is reasonable using mental math or estimation. • I can see that in a multi-digit number, a digit in one place is ten times larger than what it represented in the place to its right. • I can read and write multi-digit whole numbers using digits, number names and expanded form. • I can compare 2 multi-digit numbers using <, >, =. • I can use what I know about place value to round multi-digit numbers to any place. • I can multiply up to a 4-digit number by a 1-digit number using place value strategies and the properties of operations. • I can draw and explain a multiplication problem using equations, rectangular arrays, and/or area models. • I can use +, -, x, & / to solve word problems with distance, time, liquid volume, mass, and money.	4.OA.3 4.NBT.1 4.NBT.2 4.NBT.3 4.NBT.5 4.MD.2	Unit 2 Quick Quizzes Unit 2 Assessments

Math Expression Common Core Unit 3: Division with Whole Numbers *December*	• I can solve multi-step word problems using +, -, x, &, /. • I can interpret a remainder in a word problem. • I can write an equation to show a word problem and use a letter in place of the unknown number. • I can determine if an answer is reasonable using mental math or estimation. • I can divide up to a 4-digit number by a 1-digit number using place value strategies, properties of operations, and/or the relationship between multiplication and division. • I can draw and explain a division problem using equations, rectangular arrays, and/or area models.	4.OA.3 4.NBT.6	Unit 3 Quick Quizzes Unit 3 Assessments
Math Expression Common Core Unit 4: Equations and Word Problems *January*	• I can understand a multiplication equation as a comparison, (e.g., $35 = 5 \times 7$ means that 35 is 5 times as many as 7 and 7 times as many as 5). • I can multiply or divide to solve word problems by using drawings and equations. • I can use a symbol in an equation to represent an unknown number. • I can tell the difference between "how much more" (additive comparison) and "how many times larger" (multiplicative comparison) problems. • I can solve multi-step word problems using +, -, x, &, /. • I can interpret a remainder in a word problem. • I can write an equation to show a word problem and use a letter in place of the unknown number. • I can determine if an answer is reasonable using mental math or estimation. • I can find all the factor pairs for a number between 1-100. • I can understand that a number is a multiple of each of its factors. • I can figure out if a number between 1-100 is a multiple of a 1-digit number. • I can figure out if a number between 1-100 is a prime or composite number. • I can create a number or shape pattern that follows a given rule. • I can find other patterns within the sequence and explain why the numbers continue to follow the pattern. • I can fluently add multi-digit numbers using the standard algorithm. • I can fluently subtract multi-digit numbers using the standard algorithm. • I can multiply up to a 4-digit number by a 1-digit number using place value strategies and the properties of operations. • I can draw and explain a multiplication problem using equations, rectangular arrays, and/or area models. • I can divide up to a 4-digit number by a 1-digit number using place value strategies, properties of operations, and/or the relationship between multiplication and division. • I can draw and explain a division problem using equations, rectangular arrays, and/or area models.	4.OA.1 4.OA.2 4.OA.3 4.OA.4 4.OA.5 4.NBT.4 4.NBT.5 4.NBT.6 4.MD.2	Unit 4 Quick Quizzes Unit 4 Assessments

Math Expression Common Core Unit 5: Measurement *February*	• I can understand the size of measurements including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. • I can convert larger units of measurement to smaller units of measurement. • I can record equivalent measurements in a 2 column table. • I can create a conversion table for feet and inches. • I can use +, -, x, & / to solve word problems with distance, time, liquid volume, mass, and money. • I can show measurements using diagrams such as number lines with a measurement scale. • I can use the area and perimeter formulas for rectangles to solve real world and math problems.	4.MD.1 4.MD.2 4.MD.3 4.MD.4	Unit 5 Quick Quizzes Unit 5 Assessments
Math Expression Common Core Unit 6: Fraction Concepts and Operations *March*	• I can compare two fractions with different numerators and different denominators. • I can understand that I can compare factions only when they are part of the same whole. • I can compare fractions using <, >, =. • I can explain fraction comparisons using visual (or other) fraction models. • I can understand that when I add or subtract fractions they must be part of the same whole. • I can break apart a fraction into a sum of fractions with the same denominator in more than one way (i.e., *3/8 = 1/8 + 1/8 + 1/8 AND 3/8 = 1/8 + 2/8*). • I can use a visual fraction model to show why each way works. • I can add mixed numbers with the same denominators. • I can subtract mixed numbers with the same denominators. • I can solve fraction addition and subtraction word problems when the fractions have the same denominator by using visual fraction models and equations. • I can understand that when I add or subtract fractions they must be part of the same whole. • I can break apart a fraction into a sum of fractions with the same denominator in more than one way (i.e., *3/8 = 1/8 + 1/8 + 1/8 AND 3/8 = 1/8 + 2/8*). • I can use a visual fraction model to show why each way works. • I can add mixed numbers with the same denominators. • I can subtract mixed numbers with the same denominators. • I can use +, -, x, & / to solve word problems with distance, time, liquid volume, mass, and money.	4.NF.2 4.NF.3 4.NF.3a 4.NF.3b 4.NF.3c 4.NF.3d 4.NF.4 4.NF.4a 4.NF.4b 4.NF.4c 4.MD.1 4.MD.2 4.MD.3	Unit 6 Quick Quizzes Unit 6 Assessments

Math Expression Common Core Unit 7: Fractions and Decimals *April*	• I can explain why a fraction is equivalent to another fraction using visual fraction models. • I can use visual fraction models to find equivalent fractions. • I can compare two fractions with different numerators and different denominators. • I can understand that I can compare factions only when they are part of the same whole. • I can compare fractions using <, >, =. • I can explain fraction comparisons using visual (or other) fraction models. • I can find an equivalent fraction with a denominator of 100, when I have a denominator of 10. • I can find a common denominator of 100 to add two fractions with denominators of 10 and 100, (i.e., *3/10 + 4/100, change 3/10 to 30/100, and add 30/100 + 4/100 = 34/100.*) • I can change fractions with denominators of 10 or 100 to decimals (i.e., *0.62 = 62/100*). • I can find a decimal on a number line. • I can change fractions with denominators of 10 or 100 to decimals (i.e., *0.62 = 62/100*). • I can use decimals to describe length, (i.e., 0.62 meters). • I can find a decimal on a number line. • I can compare two decimals to the hundredths place. • I can understand that I can compare decimals only when they are part of the same whole. • I can compare decimals using <, >, =. • I can explain decimal comparisons using a visual (or other) model. • I can use +, -, x, & / to solve word problems with distance, time, liquid volume, mass, and money. • I can show measurements using diagrams such as number lines with a measurement scale.	4.NF.1 4.NF.2 4.NF.5 4.NF.6 4.NF.7 4.MD.2 4.MD.4	Unit 7 Quick Quizzes Unit 7 Assessments

| Math Expression Common Core

Unit 8: Geometry

May | • I can create a number or shape pattern that follows a given rule.
• I can find other patterns within the sequence and explain why the numbers continue to follow the pattern.
• I can understand that an angle's measurement is based on where the rays of the angle intersect the circle, when the angle vertex is placed on the circle's center.
• I can understand that a "1-degree angle" is 1/360 of a circle and can be used to measure angles.
• I can understand that an angle that turns 1-degree, n times has an angle measure of n degrees.
• I can use a protractor to measure angles.
• I can draw angles of a given measurement.
• I can understand that a larger angle can be broken into several smaller angles.
• I can understand that measure of the larger angle is the sum of all the smaller angles.
• I can solve addition and subtraction problems to find unknown angles in real world and math problems.
• I can draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines.
• I can identify points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines in 2-dimensional figures.
• I can classify shapes based on if they have parallel or perpendicular lines, or certain sized angles.
• I can understand that "right triangle" is a category of triangle.
• I can find right triangles.
• I can understand that a line of symmetry in a 2-dimensional shape is a line where the shape can be folded and the two sides match exactly.
• I can identify shapes that have line symmetry.
• I can draw lines of symmetry. | 4.OA.5
4.MD.5
4.MD.5a
4.MD.5b
4.MD.6
4.MD.7
4.G.1
4.G.2
4.G.3 | Unit 8 Quick Quizzes

Unit 8 Assessments |