Conrady Sixth Grade Instructional Math Curriculum Map 2018 - 2019

Unit	Standards	Supporting/Below Grade Level Standards	Topic	Estimated Time
#1 Fractions and Decimals And Understanding Integers and Rational Numbers	6.NS.1 (Quotients of fractions) 6.NS.2 (Divide multi-digit numbers) 6.NS.3 (Operations on decimals) 6.NS.5 (Positive & Negative numbers in real world contexts) 6.NS.6abc (Rational numbers on number line and coordinate plane 6.NS.7abcd (Ordering and absolute value) 6.NS.8 (Solving real-world problems by graphing in the coordinate plane) 6.G.3 (Draw polygons in coordinate plane)	6.NS.1 → 3.OA.B.6, 5.NF.B.7 6.NS.2 → 5.NBT.B.6 6.NS.3 → 5.NBT.B.5, 5.NBT.B.6, 5.NBT.B.7 6.NS.C.5 → none 6.NS.C.6 → 3.NF.A.2, 5.G.A.1 6.NS.C.7 → none 6.NS.C.8 → 5.G.A.2	Topic 7: Decimal Operations, Dividing Multi-Digit Numbers (17 days) Topic 8: Integers, Absolute Value (12 days) Topic 9: Rational Numbers: Comparing, Ordering, Coordinate Plane (11 days) Vocabulary: round, solution, sum, difference, product, quotient, convert, integer, <, >, absolute value, x-axis, y-axis, reflection, ordered pair, line segment, point, rational number, justify	Q1 40 days 5 quizzes 1 Test
#2 Fraction Operations	6.NS.1 (Quotients of fractions)	6.NS.1 → 3.OA.B.6, 5.NF.B.7	Topic 5: Multiplying Fractions (9 days) Topic 6: Dividing Fractions (11 days) Vocabulary: numerator, denominator, proper fraction, improper fraction, mixed number, model, algorithm	Q2 20 days 4 Quizzes 1 Test
#3 Expressions	6.EE.1 (Numerical expressions with exponents) 6.EE.2abc (Variable expressions) 6.EE.3 (Generate equivalent expressions) 6.EE.4 (Identify equivalent expressions) 6.EE.6 (Write expressions with variables when solving real-world problems) 6.NS.4 (GCF, LCM & Distributive property with expressions)	6.EE.1 → 4.OA.B.4, 5.NBT.A.2 6.EE.2 → 5.OA.A.2, 5.OA.B.3 6.EE.3 → 1.OA.B.3, 3.OA.B.5, 5.OA.A.2, 6.EE.2, 6.NS.4 6.EE.4 → 1.OA.B.3, 3.OA.B.5, 5.OA.A.2 → 7.EE.1, 7.EE.2 6.EE.6 → 6.EE.2 → 7.RP.2, 7.EE.4 6.NS.4 → 4.OA.B.4, 5.OA.A.2	Topic 1: Variables and Expressions (13 days) Topic 2: Equivalent Expressions (Properties, GCF, & LCM) (20 days) Vocabulary: order of operations, evaluate, expression, coefficient, variable, constant, term, substitute, exponent, power, base, distribute, factor, multiple, prime, composite	Q2/Q3 33 days 4 Quizzes 1 Test
#4 Equations and Inequalities	6.EE.5 (True equations and inequalities) 6.EE.6 (Write expression with variables when solving real-world problems) 6.EE.7 (Solve real-world problems using equations) 6.EE.8 (Write and understand inequalities) 6.EE.9 (Independent and dependent variables)	6.EE.5 → none → 8.G.6, 8.EE.2, 8.EE.8 6.EE.6 → 6.EE.2 → 7.RP.2, 7.EE.4 6.EE.7 → 5.NF.A.1, 5.NF.B.4, 6.NS.1 6.EE.8 → none → 7.RP.2, 7.EE.4 6.EE.9 → 5.OA.B.3	Topic 3: Equations and Inequalities (18 days) Topic 4: Two-Variable Relationships (11 days) Vocabulary: equation, value, variable, inverse, solution, set, inequality, <, >, ≤, ≥, ≠	Q3/Q4 29 days 3 Quizzes 1 Test
#5 Ratios, Rates, and Percents	6.RP.1 (Ratios) 6.RP.2 (Unit rate) 6.RP.3 (Solve real-world ratio problems)	6.RP.1 → 4.MD.A.1, 4.OA.A.2, 5.NF.B.5, 5.OA.B.3 6.RP.2 → 4.OA.A.2, 5.NF.B.3, 5.NF.B.7 6.RP.3 → none → 7.RP.2, 7.RP.3	Topic 10: Ratios (9 days) Topic 11: Rates (6 days) Topic 12: Ratio Reasoning/Percents (5 days) Vocabulary: ratio, proportion, unit rate, per, convert, percent, percent equation	Q4 20 days 2 Quizzes 1 Test

http://achievethecore.org/coherence-map/# Evidence Statement Tables

3.OA.B.6	Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5 × 7
5.NF.B.7a	Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for (1/3) ÷ 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3.
5.NF.B.7b	Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for 4 ÷ (1/5), and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ (1/5) = 20 because 20 × (1/5) = 4.
5.NF.B.7c	Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 1/3-cup servings are in 2 cups of raisins?
5.NBT.B.5	Fluently multiply multi-digit whole numbers using the standard algorithm.
5.NBT.B.6	Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
5.NBT.B.7	Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
3.NF.A.2a	Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line.
3.NF.A.2b	Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line
5.G.A.1	Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).
5.G.A.2	Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.
5.NBT.A.2	Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
5.NBT.B.5	Fluently multiply multi-digit whole numbers using the standard algorithm.
4.OA.B.4	Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.
5.OA.A.2	Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.
5.OA.B.3	Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences,

	and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.
1.OA.B.3	Apply properties of operations as strategies to add and subtract.3 Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)
3.OA.B.5	Apply properties of operations as strategies to multiply and divide.2 Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)
5.OA.A.2	Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product
5.NF.A.1	Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)
5.NF.B.4a	Interpret the product (a/b) × q as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations a × q ÷ b. For example, use a visual fraction model to show (2/3) × 4 = 8/3, and create a story context for this equation. Do the same with (2/3) × (4/5) = 8/15. (In general, (a/b) × (c/d) = ac/bd.)
5.NF.B.4b	Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
4.MD.A.1	Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ..
4.OA.A.2	Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
5.NF.B.5a	Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.
5.NF.B.5b	Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence a/b = (n×a)/(n×b) to the effect of multiplying a/b by 1.
5.NF.B.3	Interpret a fraction as division of the numerator by the denominator (a/b = a ÷ b). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?
5.NF.B.7a	Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for (1/3) ÷ 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3.
5.NF.B.7b	Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for 4 ÷ (1/5), and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ (1/5) = 20 because 20 × (1/5) = 4.
5.NF.B.7c	Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 1/3-cup servings are in 2 cups of raisins?