Vertical Alignment Chart

Big Idea: Building conceptual understanding of the base-ten system and its structure

Grade/ Course	LSSM Code	Content Standards
6	**Cluster C**	**Apply and extend previous understandings of numbers to the system of rational numbers.**
	6.NS.C.6a	Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates. a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., –(–3) = 3, and that 0 is its own opposite. Rigor: Conceptual Understanding
5	**Cluster A**	**Understand the place value system.**
	5.NBT.A.1	Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left. Rigor: Conceptual Understanding
	5.NBT.A.2	Explain and apply patterns in the number of zeros of the product when multiplying a number by powers of 10. Explain and apply patterns in the values of the digits in the product or the quotient, when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10. For example, $10^0 = 1$, $10^1 = 10$ ... and $2.1 \times 10^2 = 210$. Rigor: Conceptual Understanding, Procedural Skill and Fluency
	5.NBT.A.3a	Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$. Rigor: Conceptual Understanding, Procedural Skill and Fluency
4	**Cluster A**	**Generalize place value understanding for multi-digit whole numbers.**
	4.NBT.A.1	Recognize that in a multi-digit whole number less than or equal to 1,000,000, a digit in one place represents ten times what it represents in the place to its right. For example, (1) recognize that $700 \div 70 = 10$; (2) in the number 7,246, the 2 represents 200, but in the number 7,426 the 2 represents 20, recognizing that 200 is ten times as large as 20, by applying concepts of place value and division. Rigor: Conceptual Understanding
	4.NBT.A.2	Read and write multi-digit whole numbers less than or equal to 1,000,000 using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. Rigor: Conceptual Understanding, Procedural Skill and Fluency

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3	**Cluster A**	**Use place value understanding and properties of operations to perform multi-digit arithmetic.**[4] [4]A range of algorithms may be used.
	3.NBT.A.3	Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations. Rigor: Conceptual Understanding, Procedural Skill and Fluency
2	**Cluster A**	**Understand place value.**
	2.NBT.A.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: a. 100 can be thought of as a bundle of ten tens—called a "hundred." b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). Rigor: Conceptual Understanding
	2.NBT.A.3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. Rigor: Conceptual Understanding, Procedural Skill and Fluency
1	**Cluster B**	**Understand place value.**
	1.NBT.B.2	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: a. 10 can be thought of as a bundle of ten ones—called a "ten." b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). Rigor: Conceptual Understanding
K	**Cluster A**	**Work with numbers 11-19 to gain foundations for place value.**
	K.NBT.A.1	Gain understanding of place value. a. Understand that the numbers 11–19 are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. b. Compose and decompose numbers 11 to 19 using place value (e.g., by using objects or drawings). c. Record each composition or decomposition using a drawing or equation (e.g., 18 is one ten and eight ones, 18 = 1 ten + 8 ones, 18 = 10 + 8). Rigor: Conceptual Understanding