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| **Grade 3 Math Expectations** | | |
| **NUMBER SENSE AND OPERATIONS IN BASE TEN: NBT** | | |
| **3.NBT.A** | **Use place value understanding and properties of operations to perform multi-digit arithmetic.** | **Term:** |
| 3.NBT.A.1 | Round whole numbers to the nearest 10 or 100. | 2 – 8 |
| 3.NBT.A.2 | Read, write and identify whole numbers within 100,000 using base ten numerals, number names and expanded form. | 1. 8 |
| 3.NBT.A.3 | Demonstrate fluency with addition and subtraction within 1000. | 1 – 8 |
| 3.NBT.A.4 | Multiply whole numbers by multiples of 10 in the range 10-90. | 5 |
| **NUMBER SENSE AND OPERATIONS IN FRACTIONS: NF** | | |
| **3.NF.A** | **Develop understanding of fractions as numbers.** | **Term:** |
| 3.NF.A.1 | Understand a unit fraction as the quantity formed by one part when a whole is partitioned into equal parts. | 5 |
| 3.NF.A.2 | Understand that when a whole is partitioned equally, a fraction can be used to represent a portion of the whole.   1. Describe the numerator as representing the number of pieces being considered. 2. Describe the denominator as the number of pieces that make the whole. | 5 |
| 3.NF.A.3 | Represent fractions on a number line.   1. Understand the whole is the interval from 0 to 1. 2. Understand the whole is partitioned into equal parts. 3. Understand a fraction represents the endpoint of the length a given number of partitions from 0. | 5 |
| 3.NF.A.4 | Demonstrate that two fractions are equivalent if they are the same size or the same point on a number line. | 5 |
| 3.NF.A.5 | Recognize and generate equivalent fractions using visual models, and justify why the fractions are equivalent. | 5 |
| 3.NF.A.6 | Compare two fractions with the same numerator or denominator using the symbols >, = or <, and justify the solution. | 5 |
| 3.NF.A.7 | Explain why fraction comparisons are only valid when the two fractions refer to the same whole. | 5 |
| **RELATIONSHIPS AND ALGEBRAIC THINKING: RA** | | |
| **3.RA.A** | **Represent and solve problems involving multiplication and division.** | **Term:** |
| 3.RA.A.1 | Interpret products of whole numbers. | 5 |
| 3.RA.A.2 | Interpret quotients of whole numbers. | 6 |
| 3.RA.A.3 | Describe in words or drawings a problem that illustrates a multiplication or division situation. | 5-6 |
| 3.RA.A.4 | Use multiplication and division within 100 to solve problems. | 5-6 |
| 3.RA.A.5 | Determine the unknown number in a multiplication or division equation relating three whole numbers. | 6 |
| **3.RA.B** | **Understand properties of multiplication and the relationship between multiplication and division.** | **Term:** |
| 3.RA.B.6 | Apply properties of operations as strategies to multiply and divide. | 5-6 |
| **3.RA.C** | **Multiply and divide within 100.** | **Term:** |
| 3.RA.C.7 | Multiply and divide with numbers and results within 100 using strategies such as the relationship between multiplication and division or properties of operations. Know all products of two one-digit numbers. | 5-6 |
| 3.RA.C.8 | Demonstrate fluency with products within 100. | 5-6 |
| **3.RA.D** | **Use the four operations to solve word problems.** | **Term:** |
| 3.RA.D.9 | Write and solve two-step problems involving variables using any of the four operations. | 3-8 |
| 3.RA.D.10 | Interpret the reasonableness of answers using mental computation and estimation strategies including rounding. | 3-8 |
| **3.RA.E** | **Identify and explain arithmetic patterns.** | **Term:** |
| 3.RA.E.11 | Identify arithmetic patterns and explain the patterns using properties of operations. | 3- 8 |
| **GEOMETRY AND MEASUREMENT: GM** | | |
| **3.GM.A** | **Reason with shapes and their attributes.** | **Term:** |
| 3.GM.A.1 | Understand that shapes in different categories may share attributes and that the shared attributes can define a larger category. | 7 |
| 3.GM.A.2 | Distinguish rhombuses and rectangles as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to these subcategories. | 7 |
| 3.GM.A.3 | Partition shapes into parts with equal areas, and express the area of each part as a unit fraction of the whole. | *7* |
| **3.GM.B** | **Solve problems involving the measurement of time, liquid volumes and weights of objects.** | **Term:** |
| 3.GM.B.4 | Tell and write time to the nearest minute. | 1 |
| 3.GM.B.5 | Estimate time intervals in minutes. | 1 |
| 3.GM.B.6 | Solve problems involving addition and subtraction of minutes. | 1-2 |
| 3.GM.B.7 | Measure or estimate length, liquid volume and weight of objects. | 2 |
| 3.GM.B.8 | Use the four operations to solve problems involving lengths, liquid volumes or weights given in the same units. | 2 |
| **3.GM.C** | **Understand concepts of area.** | **Term:** |
| 3.GM.C.9 | Calculate area by using unit squares to cover a plane figure with no gaps or overlaps. | 5-6 |
| 3.GM.C.10 | Label area measurements with squared units. | 5-6 |
| 3.GM.C.11 | Demonstrate that tiling a rectangle to find the area and multiplying the side lengths result in the same value. | 5-6 |
| 3.GM.C.12 | Multiply whole-number side lengths to solve problems involving the area of rectangles. | 5-6 |
| 3.GM.C.13 | Find rectangular arrangements that can be formed for a given area. | 5-6 |
| 3.GM.C.14 | Decompose a rectangle into smaller rectangles to find the area of the original rectangle. | 5-6 |
| **3.GM.D** | **Understand concepts of perimeter.** | **Term:** |
| 3.GM.D.15 | Solve problems involving perimeters of polygons. | 5-6 |
| 3.GM.D.16 | Understand that rectangles can have equal perimeters but different areas, or rectangles can have equal areas but different perimeters. | 5-6 |
| **DATA AND STATISTICS: DS** | | |
| **3.DS.A** | **Represent and analyze data.** | **Term:** |
| 3.DS.A.1 | Create frequency tables, scaled picture graphs and bar graphs to represent a data set with several categories. | 1-8 |
| 3.DS.A.2 | Solve one- and two-step problems using information presented in bar and/or picture graphs. | 1-8 |
| 3.DS.A.3 | Create a line plot to represent data. | 1-8 |
| 3.DS.A.4 | Use data shown in a line plot to answer questions. | 1-8 |