

## Pacing Guide for Acuity Readiness Form B Grade 4- Mathematics

Grade	Domain	Cluster	Cluster	Standard Skills	DOK
Grade 03	3.G Geometry	Reason with shapes and their attributes	Reason with shapes and their attributes	3.G.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as $\frac{1}{4}$ of the area of the shape.	Level 1 - Recognizing and Recalling
Grade 03	3.NF Number and Operations - Fractions	Develop understanding of fractions as numbers	Develop understanding of fractions as numbers	3.NF.1 Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into $b$ equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by $a$ parts of size $\frac{1}{b}$ .	Level 2 - Using Fundamental Concepts and Procedures
Grade 03	3.NF Number and Operations - Fractions	3.NF.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram.	3.NF.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram.	3.NF.2.a Represent a fraction $\frac{1}{b}$ 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 $\frac{1}{b}$ and that the endpoint of the part based at 0 locates the number $\frac{1}{b}$ on the number line.	Level 2 - Using Fundamental Concepts and Procedures
Grade 03	3.NF Number and Operations - Fractions	3.NF.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram.	3.NF.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram.	3.NF.2.b Represent a fraction $\frac{a}{b}$ on a number line diagram by marking off $a$ lengths $\frac{1}{b}$ from 0. Recognize that the resulting interval has size $\frac{a}{b}$ and that its endpoint locates the number $\frac{a}{b}$ on the number line.	Level 2 - Using Fundamental Concepts and Procedures
Grade 03	3.NF Number and Operations - Fractions	3.NF.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.	3.NF.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.	3.NF.3.b Recognize and generate simple equivalent fractions, e.g., $\frac{1}{2} = \frac{2}{4}$ , $\frac{4}{6} = \frac{2}{3}$ . Explain why the fractions are equivalent, e.g., by using a visual fraction model.	Level 2 - Using Fundamental Concepts and Procedures
Grade 03	3.OA Operations and Algebraic Thinking	Represent and solve problems involving multiplication and division	Represent and solve problems involving multiplication and division	3.OA.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$ , $5 = \frac{[box]}{3}$ , $6 \times 6 = ?$ .	Level 2 - Using Fundamental Concepts and Procedures/Level 1-Recall

Grade 03	3.OA Operations and Algebraic Thinking	Multiply and divide within 100	Multiply and divide within 100	3.OA.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$ , one knows $40 / 5 = 8$ ) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	Level 1 - Recall
Grade 04	4.G Geometry	Draw and identify lines and angles, and classify shapes by properties of their lines and angles	Draw and identify lines and angles, and classify shapes by properties of their lines and angles	4.G.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	Level 2 - Using Fundamental Concepts and Procedures/Level 1- Recognizing and Recalling
Grade 04	4.G Geometry	Draw and identify lines and angles, and classify shapes by properties of their lines and angles	Draw and identify lines and angles, and classify shapes by properties of their lines and angles	4.G.3 Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.	Level 1 - Recall
Grade 04	4.MD Measurement and Data	Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit	Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit	4.MD.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), ...	Level 2 - Using Fundamental Concepts and Procedures
Grade 04	4.MD Measurement and Data	Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit	Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit	4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.	Level 2 - Using Fundamental Concepts and Procedures

Grade 04	4.MD Measurement and Data	Geometric measurement: understand concepts of angle and measure angles	Geometric measurement: understand concepts of angle and measure angles	4.MD.6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.	Level 2 - Using Fundamental Concepts and Procedures
Grade 04	4.NBT Number and Operations in Base Ten	Generalize place value understanding for multi-digit whole numbers	Generalize place value understanding for multi-digit whole numbers	4.NBT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.	Level 1 - Recall
Grade 04	4.NBT Number and Operations in Base Ten	Generalize place value understanding for multi-digit whole numbers	Generalize place value understanding for multi-digit whole numbers	4.NBT.2 Read and write multi-digit whole numbers 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.	Level 2 - Using Fundamental Concepts and Procedures
Grade 04	4.NBT Number and Operations in Base Ten	Generalize place value understanding for multi-digit whole numbers	Generalize place value understanding for multi-digit whole numbers	4.NBT.2 Read and write multi-digit whole numbers 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.	Level 2 - Using Fundamental Concepts and Procedures
Grade 04	4.NBT Number and Operations in Base Ten	Generalize place value understanding for multi-digit whole numbers	Generalize place value understanding for multi-digit whole numbers	4.NBT.3 Use place value understanding to round multi-digit whole numbers to any place.	Level 2 - Using Fundamental Concepts and Procedures
Grade 04	4.NF Number and Operations - Fractions	4.NF.4 Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.	4.NF.4 Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.	4.NF.4.a Understand a fraction $a/b$ as a multiple of $1/b$ . For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$ , recording the conclusion by the equation $5/4 = 5 \times (1/4)$ .	Level 1 - Recognizing and Recalling
Grade 04	4.NF Number and Operations - Fractions	Understand decimal notation for fractions, and compare decimal fractions	Understand decimal notation for fractions, and compare decimal fractions	4.NF.5 Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express $3/10$ as $30/100$ , and add $3/10 + 4/100 = 34/100$ .	Level 2 - Using Fundamental Concepts and Procedures

Grade 04	4.NF Number and Operations - Fractions	Understand decimal notation for fractions, and compare decimal fractions	Understand decimal notation for fractions, and compare decimal fractions	4.NF.6 Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $\frac{62}{100}$ ; describe a length as 0.62 meters; locate 0.62 on a number line diagram.	Level 2 - Using Fundamental Concepts and Procedures
Grade 04	4.NF Number and Operations - Fractions	Understand decimal notation for fractions, and compare decimal fractions	Understand decimal notation for fractions, and compare decimal fractions	4.NF.7 Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$ , $=$ , or $<$ , and justify the conclusions, e.g., by using a visual model.	Level 2 - Using Fundamental Concepts and Procedures
Grade 04	4.OA Operations and Algebraic Thinking	Use the four operations with whole numbers to solve problems	Use the four operations with whole numbers to solve problems	4.OA.1 Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.	Level 2 - Using Fundamental Concepts and Procedures
Grade 04	4.OA Operations and Algebraic Thinking	Use the four operations with whole numbers to solve problems	Use the four operations with whole numbers to solve problems	4.OA.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.	Level 2 - Using Fundamental Concepts and Procedures
Grade 04	4.OA Operations and Algebraic Thinking	Gain familiarity with factors and multiples	Gain familiarity with factors and multiples	4.OA.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.	Level 2 - Using Fundamental Concepts and Procedures

Grade 04	4.OA Operations and Algebraic Thinking	Generate and analyze patterns	Generate and analyze patterns	4.OA.5 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule Add 3 and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.	Level 2 - Using Fundamental Concepts and Procedures
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