

QUEST Grade 3 Math Post Test Blueprint

STANDARD	OPERATIONS AND ALGEBRAIC THINKING (OA)	ITEM TYPE	DOK	BLOOM'S	ITEMS	Percentage
Represent and solve problems involving whole number multiplication and division.						21%
3.OA.A.1	Interpret products of whole numbers as the total number of objects in equal groups (e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each).	MC	Recall	Application Comprehension	2	5%
3.OA.A.3	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities. <i>See Table 2.</i>	MC	Recall	Application	1	2%
3.OA.A.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers.	MC	Recall	Comprehension	1	2%
Understand properties of multiplication and the relationship between multiplication and division.						
3.OA.B.5	Apply properties of operations as strategies to multiply and divide. Properties include commutative and associative properties of multiplication and the distributive property. (Students do not need to use the formal terms for these properties.)	MC	Skill/Concept	Application	1	2%
3.OA.B.6	Understand division as an unknown-factor problem (e.g., find $32 \div 8$ by finding the number that makes 32 when multiplied by 8).	MC	Recall	Comprehension	1	2%
Multiply and divide within 100.						
3.OA.C.7	Fluently multiply and divide within 100. By the end of Grade 3, know from memory all multiplication products through 10×10 and division quotients when both the quotient and divisor are less than or equal to 10.	MC	Recall	Comprehension	1	2%
Solve problems involving the four operations, and identify and explain patterns in arithmetic.						
3.OA.D.8	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Utilize understanding of the Order of Operations when there are no parentheses.	MC	Skill/Concept	Comprehension	1	2%
3.OA.D.9	Identify patterns in the addition table and the multiplication table and explain them using properties of operations (e.g. observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends).	MC	Skill/Concept	Comprehension	1	2%
STANDARD	NUMBER AND OPERATIONS IN BASE TEN– FRACTIONS (NF)	ITEM TYPE	DOK	BLOOM'S	ITEMS	Percentage
Use place value understanding and properties of operations to perform multi-digit arithmetic.						19%
3.NBT.A.1	Use place value understanding to round whole numbers to the nearest 10 or 100.	MC	Recall	Application	1	2%
3.NBT.A.2	Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	MC	Recall	Application	1	2%
3.NBT.A.3	Multiply one-digit whole numbers by multiples of 10 in the range 10 to 90 using strategies based on place value and the properties of operations (e.g., 9×80 , 5×60).	MC	Recall	Comprehension	1	2%
Number and Operations – Fractions (NF)						
3.NF.A.1	Understand a fraction ($1/b$) as the quantity formed by one part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.	MC	Recall	Comprehension	1	2%
3.NF.A.2	Understand a fraction as a number on the number line; represent fractions on a number line diagram.	MC	Recall	Comprehension	1	2%

3.NF.A.2.b	Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Understand that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line including values greater than 1.	Graphic Drag & Drop	Skill/Concept	Comprehension	1	2%
3.NF.A.3.c	Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.	MC	Recall	Knowledge	1	2%
3.NF.A.3.d	Compare two fractions with the same numerator or the same denominator by reasoning about their size. Understand that comparisons are valid only when the two fractions refer to the same whole. Record results of comparisons with the symbols $>$, $=$, or $<$, and justify conclusions.	MC	Recall	Comprehension	1	2%
STANDARD	MEASUREMENT AND DATA (MD)	ITEM TYPE	DOK	BLOOM'S	ITEMS	Percentage
	Solve problems involving measurement.					12%
3.MD.A.1	Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes (e.g., representing the problem on a	MC	Recall	Comprehension	1	2%
	Represent and interpret data.					
3.MD.B.3	Create a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.	MC	Skill/Concept	Comprehension	1	2%
	Geometric measurement: Understand concepts of area and perimeter.					
3.MD.C.6	Measure areas by counting unit squares (e.g., square cm, square m, square in, square ft, and improvised units).	MC	Skill/Concept	Comprehension	1	2%
3.MD.C.7	Relate area to the operations of multiplication and addition.	MC	Skill/Concept	Comprehension	1	2%
3.MD.C.8	Solve real-world and mathematical problems involving perimeters of plane figures and areas of rectangles, including finding the perimeter given the side lengths, finding an unknown side length. Represent rectangles with the same perimeter and different areas or with the same area and different perimeters.	MC	Recall	Application	1	2%
STANDARD	GEOMETRY (G)	ITEM TYPE	DOK	BLOOM'S	ITEMS	Percentage
	Reason with shapes and their attributes.					5%
3.G.A.1	Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples quadrilaterals that do not belong to any of these subcategories.	MS	Recall	Comprehension	1	2%
3.G.A.2	Partition shapes into b parts with equal areas. Express the area of each part as a unit fraction $1/b$ of the whole. (Grade 3 expectations are limited to fractions with denominators $b = 2,3,4,6,8$.)	MC	Recall	Comprehension	1	2%
		Graphic Drag & Drop 4.17% Multiple Choice 91.67% Multiple Select 4.17%	Recall 70.83% Skill/Concept 29.17%	Application 25.00% Comprehension 70.83% Knowledge 4.17%	24	

