Performance Level Descriptors

Mathematics

Grade 4

Performance Level Descriptors (PLDs)				
	Level 1	**Level 2**	**Level 3**	**Level 4**
Policy Statement	The student has a minimal understanding of grade-level standards and needs additional support at this level of learning as described in the Alabama Course of Study.	The student has a partial understanding of grade-level standards and is likely to need some additional support at this level of learning as described in the Alabama Course of Study.	The student has a strong understanding of grade-level standards and demonstrates the knowledge and skills at this level of learning as described in the Alabama Course of Study.	The student has an advanced understanding of grade-level standards and exceedingly demonstrates the knowledge and skills at this level of learning as described in the Alabama Course of Study.
The performance level descriptors describe what a typical student scoring at each performance level can do. A student who scores at a level would be expected to also be able to demonstrate the skills described in previous levels. A student would not necessarily demonstrate all the skills listed at a particular performance level on a particular test in order to score at that level.				
Operations and Algebraic Thinking				
4.OA.1 4.OA.2 4.OA.3 4.OA.3a 4.OA.3b 4.OA.4 4.OA.4a 4.OA.4b 4.OA.5	**A student at this level** • solves two-step word problems by multiplying or dividing and • finds all factor pairs of whole numbers up to 24.	**A student at this level** • solves multi-step word problems by multiplying and dividing with whole-number factors, products, dividends, divisors, and quotients; • recognizes multiples of a given one-digit number; • finds all factor pairs of whole numbers up to 48; and	**A student at this level** • interprets multiplication equations as comparisons and uses them to solve multi-step word problems involving whole numbers using the four operations; • interprets remainders in context; • explains the correlations and differences between multiples and factors and identifies multiples of a given one-digit number; • finds all factor pairs of whole numbers up to 100; • determines whether a whole number up to 100 is prime or composite;	**A student at this level** • interprets multiplication equations as comparisons and uses them to solve multi-step word problems, using the four operations involving whole numbers and an unknown quantity as a variable; • finds prime factors of a given number; • explains the difference between prime and composite numbers; and

		• determines the next term in a number or shape pattern.	• generates number and shape patterns that follow a given rule, including rules expressed algebraically; and • identifies apparent features of the pattern that are not explicit in the rule itself.	• generates the rules for given number and shape patterns, including rules expressed algebraically.
Operations with Numbers: Base Ten				
4.NBT.6 4.NBT.7 4.NBT.8 4.NBT.9 4.NBT.10 4.NBT.11 4.NBT.11a 4.NBT.12 4.NBT.12a	**A student at this level** • uses place value to read and write numbers to 1,000 in standard form (base-ten numerals) and	**A student at this level** • reads and writes numbers in standard form (base-ten numerals); • uses place value to round whole numbers to their greatest place value;	**A student at this level** • represents and compares numbers based on place value and the relationship between left and right positions as multiples or quotients of 10, 100, 1,000, or 10,000; • reads and writes multi-digit numbers in standard form (base-ten numerals), word form (number names), and expanded form; • uses place value to round whole numbers to any specified place value;	**A student at this level** • uses place value to explain and illustrate multiplication algorithms,

	• adds and subtracts with up to three-digit addends, subtrahends, and minuends using the standard algorithm.	• adds and subtracts multi-digit whole numbers using the standard algorithm; • multiplies a two-digit whole number by a one-digit whole number; • finds whole-number quotients, using a two-digit whole-number dividend and one-digit divisor; and • recognizes whole-number patterns in base ten.	• adds and subtracts fluently by applying a variety of strategies, connects those strategies to the standard algorithm, and verifies the reasonableness of results; • multiplies a three- or four-digit whole number by a one-digit whole number; • multiplies two two-digit whole numbers; • finds whole-number quotients and remainders, using a three- or four-digit dividend and one-digit divisor; and • illustrates and explains calculations when multiplying and dividing.	• identifies efficient strategies for adding or subtracting multi-digit whole numbers, and • identifies and corrects errors in a given strategy for adding or subtracting multi-digit whole numbers.

Operations with Numbers: Fractions				
4.NF.13 4.NF.13a 4.NF.14 4.NF.14a 4.NF.15 4.NF.15a 4.NF.15b 4.NF.15c 4.NF.16 4.NF.16a 4.NF.16b 4.NF.16c 4.NF.17 4.NF.17a 4.NF.18 4.NF.19	**A student at this level** • compares a unit fraction and a non-unit fraction with different denominators (2, 3, 4, 6, or 8) using the symbols <, >, and =, • identifies tenths, both as fractions and as decimals, using visual models, and • adds or subtracts fractions with like denominators.	**A student at this level** • compares two fractions with different numerators and different denominators (2, 3, 4, 6, or 8) using the symbols <, >, and =; • identifies tenths and hundredths, both as fractions and as decimals, using visual models; • adds and subtracts fractions with like denominators; and	**A student at this level** • understands and explains fraction equivalence when given visual fraction models; • compares two fractions with different numerators and different denominators (2, 3, 4, 5, 6, 8, 10, 12, or 100) using the symbols <, >, and =; • expresses and represents equivalence between two fractions with denominators of 10 and 100 and uses this equivalence to add the fractions; • identifies unit fractions that compose fractions with numerators > 1; • represents and decomposes fractions as a sum of unit fractions; • adds and subtracts fractions and mixed numbers with like denominators;	**A student at this level** • understands, explains, and represents fraction equivalence by generating visual fraction models; • orders three or more fractions with different numerators and different denominators (2, 3, 4, 5, 6, 8, 10, 12, or 100);

		• solves word problems involving addition or subtraction of fractions with like denominators.	• solves word problems involving addition and subtraction of fractions and mixed numbers with like denominators; • multiplies fractions by whole numbers; • solves word problems with multiplication of fractions by whole numbers; • uses decimal notation to represent fractions with denominators of 10 and 100; and • compares two decimals to hundredths.	• solves multi-step word problems involving addition and subtraction of fractions and mixed numbers with like denominators; • represents and explains multiplication of fractions by whole numbers; • solves multi-step word problems with multiplication of fractions by whole numbers; and • orders three or more decimals to hundredths.

Data Analysis				
4.DA.20 4.DA.20a 4.DA.20b	**A student at this level**	**A student at this level** • identifies data from line plots in fractions of a unit (1/2, 1/4, 1/8) and • solves one-step problems involving addition or subtraction of fractions by using data from a line plot.	**A student at this level** • creates line plots to represent data in fractions of a unit (1/2, 1/4, 1/8) and • solves two-step problems involving addition or subtraction of fractions by using data from a line plot.	**A student at this level** • creates line plots to represent data in any fractions of a unit and • solves multi-step problems involving addition or subtraction of fractions by using data from a line plot.
Measurement				
4.M.21 4.M.21a 4.M.22 4.M.22a 4.M.22b 4.M.22c 4.M.23 4.M.24 4.M.25 4.M.26 4.M.26a	**A student at this level**	**A student at this level** • distinguishes between larger and smaller units of measurement (length, mass, liquid volume, time) within one system; • finds the areas and perimeters of rectangles; • orders angles visually by size; and	**A student at this level** • converts units of measurement (length, mass, liquid volume, time) within one system using multiplication; • solves one-step word problems in measurement using the four operations with distance, time, liquid volume, mass, and money; • finds the areas and perimeters of rectangles in real-world and mathematical problems; • measures and draws angles with a whole number of degrees using a protractor; and	**A student at this level** • solves multi-step problems in measurement conversion using the four operations and

		• solves addition and subtraction problems involving angles.	• solves addition and subtraction word problems involving angles.	• solves multi-step addition and subtraction word problems involving angles.
Geometry				
4.G.27 4.G.28 4.G.28a 4.G.29 4.G.29a	**A student at this level** • draws points and lines and • recognizes symmetrical and nonsymmetrical figures.	**A student at this level** • draws points, line segments, and angles and identifies them in two-dimensional figures and • identifies a line of symmetry.	**A student at this level** • draws points, lines, line segments, rays, angles, and perpendicular and parallel lines and identifies them in two-dimensional figures; • identifies right triangles; • classifies quadrilaterals based on the presence or absence of parallel or perpendicular lines; and • identifies and draws lines of symmetry in two-dimensional figures.	**A student at this level** • draws, defines, and interprets points, lines, line segments, rays, angles, and perpendicular and parallel lines and represents them in two-dimensional figures; • identifies and generalizes right triangles; • provides examples of two-dimensional figures given specific characteristics; and • interprets symmetry as a characteristic of two-dimensional figures.

