Performance Level Descriptors

Mathematics

Grade 5

DATA RECOGNITION
DRC
CORPORATION

	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

5.OA.1 5.OA.2 5.OA.2a 5.OA.2b 5.OA.2c	**A student at this level** • evaluates one-step numerical expressions and • identifies the next term in a pattern.	**A student at this level** • writes simple numerical expressions and applies a set of grouping symbols appropriately and • identifies or generates a rule for a given pattern.	**A student at this level** • writes, explains, and evaluates numerical expressions using grouping symbols, • generates two numerical patterns from two rules, identifies the corresponding terms, and explains the corresponding relationships, and • translates numerical patterns into ordered pairs and plots the points on a coordinate plane.	**A student at this level** • writes, explains, and evaluates numerical expressions with two or more sets of grouping symbols, • generates two complex numerical patterns from two rules, identifies the corresponding terms, and explains the corresponding relationships, and • translates numerical patterns into ordered pairs, plots coordinate pairs on a coordinate plane, and explains data displayed on a coordinate plane.

Operations with Numbers: Base Ten

| 5.NBT.3
5.NBT.3a
5.NBT.3b
5.NBT.4
5.NBT.4a
5.NBT.4b
5.NBT.5
5.NBT.6
5.NBT.7
5.NBT.8
5.NBT.8a
5.NBT.8b | **A student at this level**

• identifies the place value name for a given digit or the digit in a given place value in a decimal to the tenths. | **A student at this level**

• identifies the place value name for a given digit or the digit in a given place value in a decimal to the thousandths;

• multiplies and divides by powers of ten;

• reads, writes, and symbolically compares (using <, >, and =) decimals to the hundredths;

• multiplies multi-digit whole numbers using a visual or place value strategy; | **A student at this level**

• recognizes that the value of a digit is ten times as great as the same digit one place to the right and one-tenth as great as the same digit one place to the left;

• uses whole-number exponents to denote powers of ten;

• reads, writes, and symbolically compares (using <, >, and =) decimals to the thousandths in standard form (base-ten numerals);

• uses place values to round decimals to the thousandths;

• multiplies multi-digit whole numbers using the standard algorithm; | **A student at this level**

• reads, writes, and symbolically compares (using <, >, and =) decimals to the thousandths, including in expanded form;

• compares three or more decimals to the thousandths;

• fluently multiplies multi-digit whole numbers; |

		• divides whole numbers with dividends up to four digits and one-digit divisors; and	• divides multi-digit whole numbers with dividends up to four digits and divisors up to two digits; and	• fluently divides multi-digit whole numbers; and
		• adds, subtracts, multiplies, or divides decimals to the hundredths.	• adds, subtracts, multiplies, and divides decimals to the hundredths with and without real-world context.	• fluently adds, subtracts, multiplies, and divides decimals to any place value.

Operations with Numbers: Fractions

5.NF.9 5.NF.10 5.NF.11 5.NF.11a 5.NF.11b 5.NF.12 5.NF.12a 5.NF.12b 5.NF.12c 5.NF.12d 5.NF.13 5.NF.13a 5.NF.13b 5.NF.13c 5.NF.14 5.NF.15 5.NF.15a 5.NF.15b 5.NF.15c	**A student at this level**	**A student at this level** • adds and subtracts fractions with unlike denominators,	**A student at this level** • solves one-step word problems with addition and subtraction of fractions with unlike denominators; • adds and subtracts fractions and mixed numbers with unlike denominators; • recognizes a fraction as a numerator divided by a denominator; • solves one-step word problems involving division of whole numbers, which leads to answers in the form of fractions or mixed numbers;	**A student at this level** • solves multi-step word problems with addition and subtraction of fractions with unlike denominators; • recognizes and interprets a fraction as a numerator divided by a denominator; • solves multi-step word problems involving division of whole numbers, which leads to answers in the form of fractions or mixed numbers;

		• multiplies fractions by fractions and fractions by whole numbers;	
	• fluently multiplies a fraction by a whole number, and	• solves one-step problems involving areas of rectangles with fractional side lengths;	• solves multi-step problems involving areas of rectangles with fractional side lengths;
	• recognizes that multiplication may result in a product that is smaller than one of the factors.	• interprets multiplication as scaling to modify the relative sizes of numbers with respect to fractions > 1 and < 1;	• understands, interprets, and represents multiplication as scaling to modify the relative sizes of numbers with respect to fractions > 1 and < 1;
		• models and solves real-world one-step problems involving multiplication of fractions and mixed numbers;	• models and solves real-world multi-step problems involving multiplication of fractions and mixed numbers;
		• solves real-world problems involving division of unit fractions by whole numbers and division of whole numbers by unit fractions; and	• represents and interprets division of fractions by dividing unit fractions by whole numbers and dividing whole numbers by unit fractions; and
		• creates story contexts involving division of unit fractions and whole numbers.	• creates and solves problems involving division of unit fractions and whole numbers without the use of models.

Data Analysis

5.DA.16 5.DA.16a	A student at this level	A student at this level	A student at this level	A student at this level
		• creates line plots consisting of data in fractions of a unit.	• creates line plots consisting of data in fractions of a unit and solves problems involving information presented in line plots.	• solves complex problems involving information presented in line plots.

Measurement

5.M.17 5.M.18 5.M.18a 5.M.19 5.M.19a 5.M.19b 5.M.19c	A student at this level	A student at this level	A student at this level	A student at this level
	• calculates one-step conversions of length and time within a given system and	• calculates one-step conversions of length, time, and mass within a given system,	• calculates one-step conversions of time, length, volume, and mass within a given system in multi-step problems,	• calculates multi-step conversions of time, length, volume, and mass and
	• identifies volume as an attribute of three-dimensional objects.	• identifies cubic length units as measures of volume, and	• identifies and represents volume as an attribute of three-dimensional objects, and	• represents and analyzes volume as an attribute of three-dimensional objects.
		• finds volumes of right rectangular prisms by counting unit cubes.	• finds volumes of right rectangular prisms and recognizes the relationship between using multiplication and packing the prism with unit cubes.	

Geometry

5.G.20 5.G.21 5.G.22 5.G.23	A student at this level • identifies parts of a coordinate plane and graphs points with the same *x*- and *y*-coordinates in the first quadrant of the coordinate plane and • identifies attributes of two-dimensional figures.	A student at this level • graphs points with different *x*- and *y*-coordinates in the first quadrant of the coordinate plane and • classifies two-dimensional figures according to their attributes.	A student at this level • graphs points in the first quadrant of the coordinate plane and interprets points in a real-world context and • classifies triangles according to side length and angle measure and classifies quadrilaterals in a hierarchy.	A student at this level • explains the relationships between categories and subcategories of two-dimensional figures according to their attributes.