

Performance Level Descriptors – Grade 3 Mathematics

PLD	Domain	Below Basic	Basic	Proficient	Advanced
Reporting		<p>Below Basic do not yet demonstrate proficiency in the knowledge and skills necessary at this grade level/course of learning, as specified in content expectations.</p> <p>The students need substantial academic support to be prepared for the next grade level or course and to be on track for <i>college and career readiness</i>.</p>	<p>Basic demonstrate partial proficiency in the knowledge and skills necessary at this grade level/course of learning, as specified in content expectations. The students need additional academic support to ensure success in the next grade level or course and to be on track for <i>college and career readiness</i>.</p>	<p>Proficient demonstrate proficiency in the knowledge and skills necessary at this grade level/course of learning, as specified in content expectations, and uses clear and precise language when communicating mathematical understanding. The students are prepared for the next grade level or course and are on track for <i>college and career readiness</i>.</p>	<p>Advanced demonstrate advanced proficiency in the knowledge and skills necessary at this grade level/course of learning, as specified in content expectations. The students are well prepared for the next grade level or course and are well prepared for <i>college and career readiness</i>.</p>
		<p>A student who performs at the Below Basic level demonstrates minimal command of the grade-level expectations.</p>	<p>A student who performs at the Basic level demonstrates partial command of the grade-level expectations.</p>	<p>A student who performs at the Proficient level demonstrates proficiency of the grade-level expectations.</p>	<p>A student who performs at the Advanced level demonstrates advanced proficiency of the grade-level expectations.</p>

PLD	Domain	Below Basic	Basic	Proficient	Advanced
Range	Relationships and Algebraic Thinking	Solves one-step problems with a given model involving any of the four operations; Solves problems involving multiplication and division with a given model; Calculates sums, differences, and products of whole numbers; Looks for structure to find the next term in a pattern.	Models writes and solves one-step problems involving any of the four operations; Solves problems involving multiplication and division; determines an unknown in a multiplication equation; Generates arithmetic patterns using repeated reasoning	Uses estimation to determine reasonableness of answers when solving two-step problems that involve variables and any of the four operations; Models and solves problems involving multiplication and division within 100; Determines unknowns in multiplication and division equations through contextual and abstract reasoning; Applies the properties of operations and looks for repeated reasoning with the relationship between multiplication and division; Looks for and makes use of structure and repeated reasoning when solving arithmetic patterns using properties of operations.	Evaluates and interprets solutions to two-step problems that involve variables and any of the four operations; Constructs viable arguments to justify relationships between multiplication and division; Critiques the reasoning and representations of others when solving multiplication and division problems with unknowns.
	Number and Operations In Base Ten	Identifies whole numbers within 100,000; Rounds numbers to the nearest 100 using reasoning; Adds and subtracts within 1000 using a given model	Reads and writes whole numbers using multiple forms within 100,000; Rounds whole numbers to the nearest 100 within context using reasoning; Uses strategies based on value when adding and subtracting within 1000.	Reasons both contextually and abstractly when rounding whole numbers to the nearest 10 and 100 using place value understanding; Uses strategies based on place value and properties of operations when adding and subtracting within 1000; Looks for and expresses reasoning when multiplying whole numbers by multiples of ten	Critiques the reasoning and representation of others when adding and subtracting within 1000; Models mathematically and reflects on reasonability when multiplying whole numbers by multiples of ten

PLD	Domain	Below Basic	Basic	Proficient	Advanced
Range	Number and Operations In Fractions	Compares fractions with the same numerator or denominator using a given visual model; Identifies the unit fraction in a given visual model; Identifies a fraction as an equal part of the whole; Reads and writes fractions; Expresses whole numbers as fractions (limit to halves, thirds, and fourths)	Generates models to compare fractions with the same numerator or denominator; Partitions a number line into equal parts to represent unit fractions; Represents and identifies fractions on a number line by reasoning about their size; Recognizes equivalent fractions when given a visual model (limit to halves, thirds, fourths, and eighths)	Reasons quantitatively to compare fractions with the same numerator or same denominator; Justify and explain comparisons of fractions based on the relationship of the wholes; Models understanding of equal parts of a whole and as intervals on a number line; Generates equivalent fractions using visual models (Limit to halves, thirds, fourths, sixths, and eighths)	Critiques the reasoning of how others solve problems when comparing fractions, modeling understanding of equal parts of a whole, and justifying equivalent fractions.
	Geometry and Measurement	Tells and writes time to the nearest minute (digital); Estimates lengths, liquid volumes, and weights to the nearest whole unit; Finds perimeter given all side lengths; Finds and labels area with square units given a visual model; Recognizes quadrilaterals; Identifies unit fractions of a shape given a visual model	Uses tools to tell and write time to the nearest minute (analog); Compare lengths, liquid volumes, and weights of objects to the nearest whole unit using quantitative reasoning; Calculates and compare the area of rectangles with whole number dimensions; Calculate and compare the perimeter of rectangles with whole number dimensions; Recognizes that shapes fit into different categories; Partitions regular polygons into regions of equal areas	Uses appropriate tools and the four operations to solve problems involving lengths, liquid volumes, and weights; Adds, subtracts and estimates time intervals in minutes; Solves problems involving the area of rectangles and perimeter of polygons; Attends to precision when categorizing and creating two-dimensional shapes based on attributes; Reasons abstractly and contextually when relating equal areas of shapes to fractional parts of the whole; Decomposes rectangles to find area based on a given area or perimeter	Attends to precision and reasons quantitatively when solving problems using the four operations involving lengths, liquid volumes, and weights; Analyzes and classifies two-dimensional shapes based on multiple attributes; Reasons quantitatively to strategically solve problems involving area and perimeter with appropriate tools.
	Data and Statistics	Reads and interprets frequency tables, scaled picture graphs, bar graphs and line plots using the data to solve problems.	Constructs and interprets frequency tables, scaled picture graphs, bar graphs and line plots using the data to solve one-step problems.	Reasons abstractly and contextually to construct and interpret frequency tables, scaled picture graphs, bar graphs and line plots using the data to solve two-step problems.	Critiques the reasoning of the representations of others when solving two-step problems that include interpreting and comparing graphs.