Achievement Level Descriptors

Grade 3 Mathematics

Achievement Levels and Achievement Level Descriptors

With the implementation of the Missouri Learning Standards (MLS) educators have developed four achievement levels to describe student mastery and command of the knowledge and skills outlined in the MLS content expectations. Most students have at least some knowledge of the content described in the content expectations; however, achievement levels succinctly describe how much mastery a student has. Achievement levels give meaning and context to scale scores by describing the knowledge and skills students must demonstrate to achieve each level.

The four achievement levels on MLS are Below Basic, Basic, Proficient and Advanced. The general meaning of each of the four levels is provided below:

Below Basic students **do not yet demonstrate proficiency** in the knowledge and skills necessary at this grade level/course of learning, as specified in the MLS. The students *need substantial academic support* to be prepared for the next grade level or course and to be on track for college and career readiness.

Basic students **demonstrate partial proficiency** in the knowledge and skills necessary at this grade level/course of learning, as specified in the MLS. The students *need additional academic support* to ensure success in the next grade level or course and to be on track for college and career readiness.

Proficient students **demonstrate proficiency** in the knowledge and skills necessary at this grade level/course of learning, as specified in the MLS. The students *are prepared* for the next grade level or course and are on track for college and career readiness.

Advanced students **demonstrate advanced proficiency** in the knowledge and skills necessary at this grade level/course of learning, as specified in the MLS. The students *are well prepared* for the next grade level or course and are well prepared for college and career readiness.

More detailed and content-specific concepts and skills are provided for each grade, content area, and course in the **Achievement Level Descriptors** (ALDs). ALDs are narrative descriptions of the knowledge and skills expected at each of the four achievement levels and were developed for each grade level, content area, and course. The ALDs are based on the state-adopted content expectations.

ALDs show a *progression of knowledge and skills* for which students must demonstrate competency across the achievement levels. It is important to understand that a student should demonstrate mastery of the knowledge and skills within his/her achievement level *as well as all content and skills in any achievement levels that precede his/her own, if any*. For example, a Proficient Learner should also possess the knowledge and skills of a Below Basic and Basic student.

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ALD	Domain	Below Basic	Basic	Proficient	Advanced
Policy		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. These students need substantial academic support to be prepared for the next grade level or course and to be on track for *college and career readiness.*	Basic demonstrate partial proficiency in the knowledge and skills necessary at this grade level/course of learning, as specified in content expectations. These students need additional academic support to ensure success in the next grade level or course and to be on track for *college and career readiness.*	Proficient demonstrate proficiency in the knowledge and skills necessary at this grade level/course of learning, as specified in content expectations. These students are prepared for the next grade level or course and are on track for *college and career readiness.*	Advanced demonstrate advanced proficiency in the knowledge and skills necessary at this grade level/course of learning, as specified in content expectations. These students are well prepared for the next grade level or course and are well prepared for *college and career readiness.*
		A student who achieves at the **Below Basic** level demonstrates minimal command of the grade-level expectations.	A student who achieves at the **Basic** level demonstrates partial command of the grade-level expectations.	A student who achieves at the **Proficient** level demonstrates proficiency of the grade-level expectations.	A student who achieves at the **Advanced** level demonstrates advanced proficiency of the grade-level expectations.
Range	Operations and Algebraic Thinking	Calculates sums, differences and products of whole numbers; and finds the next term in a pattern.	Solves one-step problems using the four operations, and finds an unknown in a multiplication equation.	Interprets whole-number products and quotients, finds unknowns in division equations, applies a property of operations to multiply and divide, knows from memory all products of two one-digit numbers, solves two-step word problems with variables using all four operations, and identifies arithmetic patterns.	Interprets multiplication and division problems with drawings and equations, understands division as an unknown factor problem, assesses the reasonableness of solutions with rounding, and creates rules for arithmetic patterns.
	Number and Operations – Base Ten		Adds and subtracts within 1000.	Uses place value relationships to round numbers, adds and subtracts within 1000 using various strategies, and multiplies whole numbers by multiples of ten.	Analyze various methods to add, subtract and multiply numbers based on an understanding of place value and the properties of operations.

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ALD	Domain	Below Basic	Basic	Proficient	Advanced
Range	Number and Operations – Fractions	Reads and writes fractions, and expresses whole numbers as fractions.	Partitions a number line to represent unit fractions, and represents and identifies fractions on a number line by reasoning about their size.	Understands fractions in terms of equal parts of a whole and as intervals on a number line, generates equivalent fractions, and compares fractions with the same numerator or with the same denominator by reasoning about their size or with visual models.	Understands how to build fractions from the sum of unit fractions, recognizes fractional equivalence using a visual model, and analyzes fraction comparisons based on the whole(s).
	Measurement and Data	Tells and writes time (digital); recognizes standard units such as centimeters, grams, feet and inches; and finds perimeter given all side lengths.	Tells and writes time to the minute (analog); measures length to the nearest whole unit; compares areas by size; solves one-step problems using the information presented in a bar graph, picture graph or line plot (not scaled); and calculates the area and perimeter of rectangles with whole number dimensions.	Measures time intervals in minutes; measures and solves problems involving volume and mass; constructs and interprets scaled picture graphs, bar graphs and line plots; measures and estimates length to one-quarter of a unit; and solves problems involving the area and perimeter of rectangles.	Solves multistep problems involving time intervals; interprets and compares data graphs; understands the relationship between the properties of multiplication and addition as they relate to perimeter and area; and solves real world applications of area and perimeter.
	Geometry	Recognizes quadrilaterals, and partitions shapes into halves.	Recognizes that shapes fit into different categories, and partitions regular polygons into regions of equal areas.	Categorizes two-dimensional shapes based on attributes, and relates equal areas of shapes to fractional parts of the whole.	Analyzes the attributes of two-dimensional objects, and classifies the same group of polygons in different ways based on attributes.