

Performance Level Descriptors

Mathematics

Grade 6

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.

Proportional Reasoning

| | A student at this level | A student at this level | A student at this level | A student at this level |
|----------------------------|---|---|---|---|
| 6.PR.1 6.PR.2 6.PR.3 | <ul style="list-style-type: none"> understands ratio concepts as “part-to-part” and numerator/denominator relationships and identifies equivalent ratios. | <ul style="list-style-type: none"> understands ratio concepts as “part-to-part,” dividend/divisor relationships, equivalent fractions, and percentages and understands ratio notations and ratio and rate language. | <ul style="list-style-type: none"> understands ratio concepts as numerical comparisons using division, equivalence of ratios and rates, unit rates, percentages, and measurement conversions, uses ratio notations and ratio and rate language to describe relationships, and uses ratio and rate reasoning to solve problems using a variety of models. | <ul style="list-style-type: none"> uses ratio and rate reasoning to connect different representations of ratios. |

| Number Systems and Operations | | | | |
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| 6.NSO.4 6.NSO.4a 6.NSO.5 6.NSO.6 6.NSO.7 6.NSO.8 6.NSO.8a 6.NSO.9 6.NSO.10 6.NSO.10a 6.NSO.10b 6.NSO.11 6.NSO.11a 6.NSO.11b 6.NSO.11c 6.NSO.11d 6.NSO.12 6.NSO.13 | A student at this level <ul style="list-style-type: none"> identifies common multiples; identifies integers on a number line; identifies integer points in all four quadrants; and identifies the absolute values of positive and negative integers. | A student at this level <ul style="list-style-type: none"> fluently divides multi-digit whole numbers; identifies common factors and common multiples; identifies rational numbers on a number line; graphs integer points in all four quadrants; and understands that the absolute value of a rational number is its distance from 0 on a number line. | A student at this level <ul style="list-style-type: none"> divides fractions by fractions and solves word problems involving division of fractions; fluently computes with decimals; finds least common multiples and greatest common factors and determines prime factorization; locates and orders rational numbers on a number line; solves problems involving graphing integer points in all four quadrants; and orders the absolute values of rational numbers without context. | A student at this level <ul style="list-style-type: none"> interprets quotients of fractions in context; applies concepts of least common multiples and greatest common factors to solve real-world problems; solves problems involving graphing rational points in all four quadrants; and orders and interprets the absolute values of rational numbers in real-world contexts. |

| Algebra and Functions | | | | |
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| 6.AF.14 6.AF.15 6.AF.15a 6.AF.15b 6.AF.15c 6.AF.15d 6.AF.16 6.AF.17 6.AF.18 6.AF.19 6.AF.19a 6.AF.20 6.AF.20a 6.AF.20b 6.AF.21 6.AF.21a | A student at this level <ul style="list-style-type: none"> identifies parts of numeric and algebraic expressions and determines whether a value is a solution to a one-variable equation. | A student at this level <ul style="list-style-type: none"> reads and writes numeric and algebraic expressions; identifies when two expressions are equivalent; solves one-step, one-variable equations; determines whether a value is a solution to a one-variable inequality; and identifies dependent and independent variables. | A student at this level <ul style="list-style-type: none"> reads, writes, evaluates, and compares expressions with variables and whole-number exponents; uses properties of operations to generate equivalent expressions; writes and solves one-step, one-variable equations; writes and solves one-variable inequalities and represents them on a number line; and represents and models relationships between dependent and independent variables. | A student at this level <ul style="list-style-type: none"> understands and interprets expressions, equations, and inequalities in real-world contexts and interprets and analyzes relationships between dependent and independent variables in real-world contexts and translates among graphs, tables, and equations. |

| Data Analysis, Statistics, and Probability | | | | |
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| 6.DSP.22 6.DSP.23 6.DSP.23a 6.DSP.23b 6.DSP.24 6.DSP.24a 6.DSP.24b | A student at this level <ul style="list-style-type: none"> recognizes measures of center versus measures of variability. | A student at this level <ul style="list-style-type: none"> calculates the mean, median, mode, and range of a data set. | A student at this level <ul style="list-style-type: none"> distinguishes between statistical and nonstatistical questions; calculates, interprets, and compares measures of center and variability (including interquartile range) in data sets; describes a distribution of data by its center, spread, shape, and features; and displays and analyzes real-world data using various statistical plots. | A student at this level <ul style="list-style-type: none"> determines and explains the most appropriate measure of center and measure of variability based on the shape of the data and the context of the problem. |

| Geometry and Measurement | | | | |
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| 6.GM.25 6.GM.25a 6.GM.25b 6.GM.25c 6.GM.26 6.GM.26a 6.GM.27 6.GM.28 6.GM.28a | A student at this level <ul style="list-style-type: none"> graphs polygons in the coordinate plane given coordinates, calculates the area of right triangles, and identifies three-dimensional figures represented as nets composed of rectangles and triangles. | A student at this level <ul style="list-style-type: none"> finds side lengths of polygons graphed in the coordinate plane when the vertices have the same x-coordinates or y-coordinates; calculates the area of already-decomposed polygons; represents three-dimensional figures by using nets composed of rectangles and triangles; and finds volumes of right rectangular prisms with fractional edge lengths using unit cubes and formulas. | A student at this level <ul style="list-style-type: none"> calculates perimeter and area of polygons graphed in the coordinate plane to solve real-world and mathematical problems; composes and decomposes polygons to solve real-world and mathematical problems related to area; uses nets to determine surface area of three-dimensional figures; and finds volumes of right rectangular prisms with fractional edge lengths using unit cubes and formulas to solve real-world and mathematical problems. | A student at this level <ul style="list-style-type: none"> recognizes multiple ways to compose and decompose polygons to solve real-world and mathematical problems related to area and extends understanding of surface area and volume to solve multi-step real-world and mathematical problems involving three-dimensional objects. |