 **South Dakota Grade 6 Mathematics Threshold Descriptors**

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| **Grade 6 Priority Cluster: Ratios and Proportional Relationships (Target(s) – A)** | | |
| Threshold 2 | Threshold 3 | Threshold 4 |
| * Find unit rates given two whole number quantities where one evenly divides the other | * Solve unit rate problems. * Solve percent problems by finding the whole, given a part and the percent. * Describe a ratio relationship between any two number quantities and understand the concept of unit rate in problems (denominators less than or equal to 12). | * Solve unfamiliar or multi-step problems by finding the whole, given a part and the percent. * Understand and explain ratio relationships between any two number quantities. * Identify relationships between models or representations |

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| **Grade 6 Priority Cluster: The Number System (Target(s) –B, C)** | | |
| Threshold 2 | Threshold 3 | Threshold 4 |
| * Evaluate expressions with and without variables and without exponents. * Write one- and two-step algebraic expressions introducing a variable. * Solve one-variable equations and inequalities of the form x + p =/≤/≥/</> q or px =/≤/≥/</> q, where p and q are nonnegative rational numbers. * Given a table of values for a linear relationship (y = kx or y = x ± c), create the equation | * Write and evaluate numerical expressions without exponents and expressions from formulas in real- world problems. * Identify equivalent expressions. * Write one-variable equations and inequalities of the form x + p =/≤/≥/</> q or px =/≤/≥/</> q, where p and q are nonnegative rational numbers. * Graph solutions to equations and inequalities on the number line. * Create the graph, table, and equation for a linear relationship (y = kx or y = x ± c) and make connections between the representations | * Using the properties of operations, show why two expressions are equivalent. * Solve equations and inequalities of the form x + p =/≤/≥/</> q or px =/≤/≥/</> q, where p and q are rational numbers. * Create the graph, table, and equation for nonlinear polynomial relationships, making connections between the representations |

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| **Grade 6 Priority Cluster: Expressions and Equations (Target(s) – E, F, G)** | | |
| Threshold 2 | Threshold 3 | Threshold 4 |
| * Recognize equivalent fractions using visual models. * Use visual fraction models to represent a problem. * Express a fraction with denominator 10 as an equivalent fraction with denominator 100 | * Generate equivalent fractions using visual models. Identify and generate equivalent forms of a fraction with like denominators. * Add two fractions with respective denominators 10 and 100 | * Compare two fractions with different numerators and different denominators using <, >, and =. * Compare two decimals to the hundredths using <, >, and = or a number line and justify the conclusions by using visual models |

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| **Grade 6 Supporting Cluster: The Number System (Target(s) –D)** | | |
| Threshold 2 | Threshold 3 | Threshold 4 |
| * Order fractions and integers. * Place integer pairs on a coordinate plane with axis increments of 2, 5, or 10. | * Place points with rational coordinates on a coordinate plane and combine absolute value and ordering, with or without models (|-3|<|-5|). |  |

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| **Grade 6 Supporting Cluster: Geometry (Target(s) – H)** | | |
| Threshold 2 | Threshold 3 | Threshold 4 |
| * Find areas of special quadrilaterals and triangles. Draw polygons in the four-quadrant plane | * Find areas of quadrilaterals and other polygons that can be decomposed into three or fewer triangles. * Find the volume of right rectangular prisms with fractional or mixed number side lengths | * Solve problems by finding surface areas of triangular or rectangular prisms and triangular or rectangular pyramids |

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| **Grade 6 Supporting Cluster: Statistics and Probability (Target(s) – I, J)** | | |
| Threshold 2 | Threshold 3 | Threshold 4 |
| * Understand that questions that lead to variable responses are statistical questions and vice versa. * Identify a reasonable measure of central tendency for a given set of numerical data. * Find mean and median | * Identify a reasonable center and spread for a given context and understand how this relates to the overall shape of the data distribution. * Understand that a measure of center summarizes all of its values with a single number. * Summarize or display data in box plots. Find the interquartile range. * Use range and measures of center to describe the shape of the data distribution as it relates to a familiar context. * Pose statistical questions | * Predict effects on mean and median given a change in data points. * Complete a data set with given measures (e.g., mean, median, mode, interquartile range). |