 **South Dakota Grade 5 Mathematics Threshold Descriptors**

|  |  |  |
| --- | --- | --- |
| **Grade 5 Priority Cluster: Number and Operations – Base Ten (Target(s) – C, D)** | | |
| Threshold 2 | Threshold 3 | Threshold 4 |
| * Add and subtract to solve one-step problems involving an unknown number | * Multiply and divide to solve one-step problems involving equal groups or arrays | * Assess the reasonableness of answers using mental computation and estimation strategies, including rounding |

|  |  |  |
| --- | --- | --- |
| **Grade 5 Priority Cluster: Number and Operations – Fractions (Target(s) – E, F)** | | |
| Threshold 2 | Threshold 3 | Threshold 4 |
| * Add two fractions and/or mixed numbers with unlike denominators (denominators less than or equal to 6) in mathematical problems. * Use benchmark fractions to estimate and assess the reasonableness of answers (denominators less than or equal to 6). * Multiply a whole number by a mixed number. Know the effect that a fraction greater than or less than 1 has on a whole number when multiplied. * Use visual models when multiplying two fractions between 0 and 1. * Perform division of a whole number by any unit fraction. * Understand that division of whole numbers can result in fractions | * Subtract fractions and mixed numbers with unlike denominators in word problems. * Use benchmark fractions and number sense of fractions to estimate and assess the reasonableness of answers. * Multiply a mixed number by a mixed number. * Use visual models when multiplying two fractions, including when one fraction is larger than 1. * Interpret division of a whole number by any unit fraction | * Use or create visual models when multiplying two fractions that are larger than 1. |

|  |  |  |
| --- | --- | --- |
| **Grade 5 Priority Cluster: Measurement and Data (Target(s) – I)** | | |
| Threshold 2 | Threshold 3 | Threshold 4 |
| * Understand the concept that the volume of a rectangular prism packed with unit cubes is related to the edge lengths. | * Use V = lwh and V = Bh to find the volume of rectangular prisms. | * Find the volume of a right rectangular prism after doubling the edge length of a side with a whole number measurement and compare it to the original. |

|  |  |  |
| --- | --- | --- |
| **Grade 5 Supporting Cluster: Operations and Algebraic Thinking (Target(s) – A, B)** | | |
| Threshold 2 | Threshold 3 | Threshold 4 |
| * Write numerical expressions having one set of parentheses, brackets, or braces. * Graph whole number ordered pairs from two whole number numerical patterns on a coordinate plane | * Write and interpret expressions with two different operations. * Compare two related numerical patterns within sequences and tables | * Compare two related numerical patterns and explain the relationship within sequences of ordered pairs that are rational numbers |

|  |  |  |
| --- | --- | --- |
| **Grade 5 Supporting Cluster: Measurement and Data (Target(s) – G, H)** | | |
| Threshold 2 | Threshold 3 | Threshold 4 |
| * Convert a whole number measurement to a decimal or fractional valued measurement within the same system (e.g., 30 in =\_\_\_\_\_\_ft). * Make a line plot and display data sets in whole and half units | * Convert from a smaller unit of measurement to a larger one, resulting in one decimal place (metric system) or a small denominator fraction (standard system). * Make a line plot to display data sets in fractions of a unit (1/2, 1/4, 1/8). * Solve one-step problems using information from line plots that require addition, subtraction, and multiplication of fractions |  |

|  |  |  |
| --- | --- | --- |
| **Grade 5 Supporting Cluster: Geometry (Target(s) – J, K)** | | |
| Threshold 2 | Threshold 3 | Threshold 4 |
| * Graph whole number coordinate pairs on a coordinate plane with whole number increments of 2, 5, and 10. * Classify two-dimensional figures into categories by their attributes or properties | * Graph coordinate pairs where one term is a whole number and one is a fraction with a denominator of 2 or 4 on a coordinate plane with whole number axis increments. * Classify two-dimensional figures into subcategories by their attributes or properties | * Graph coordinate pairs where one term is a whole number and one is a fraction on a coordinate plane with fractional axis increments of 1/2, 1/4, or 1/10. |