**Virginia Mathematics Standards of Learning Tracking Log**

**Bridging from Grade 4 to Grade 5**

The skills and strategies introduced in the Mathematics Standards of Learning vertically articulate from kindergarten to high school and many standards build in complexity within K-12 instruction. Teachers can use this tracker to help determine which standards students have had sufficient exposure and experience during the previous school year to make decisions regarding when and how experience with new standards might occur in the current school year. Mathematics Bridging Standards documents are available to allow for the identification of content that can be connected when planning instruction and promote deeper student understanding. The Grade 5 Bridging Standards document can be used in conjunction with this Tracking Log to help link the content from grade 4 to grade 5 and to plan instruction for the current school year.

|  | **Addressed during previous school year** | **Not Addressed/ Insufficient Exposure during previous school year** | **Comments** |
| --- | --- | --- | --- |
| 4.1a The student will read, write, and identify the place and value of each digit in a nine-digit whole number; |  |  |  |
| 4.1b The student will compare and order whole numbers expressed through millions; and |  |  |  |
| 4.1c The student will round whole numbers expressed through millions to the nearest thousand, ten thousand, and hundred thousand. |  |  |  |
| 4.2a The student will compare and order fractions and mixed numbers, with and without models; |  |  |  |
| 4.2b The student will represent equivalent fractions; and |  |  |  |
| 4.2c The student will identify the division statement that represents a fraction, with models and in context. |  |  |  |
| 4.3a The student will read, write, represent, and identify decimals expressed through thousandths; |  |  |  |
| 4.3b The student will round decimals to the nearest whole number; |  |  |  |
| 4.3c The student will compare and order decimals; and |  |  |  |
| 4.3d The student will given a model, write the decimal and fraction equivalents. |  |  |  |
| 4.4a The student will demonstrate fluency with multiplication facts through 12 x 12, and the corresponding division facts; |  |  |  |
| 4.4b The student will estimate and determine sums, differences, and products of whole numbers; |  |  |  |
| 4.4c The student will estimate and determine quotients of whole numbers, with and without remainders; and |  |  |  |
| 4.4d The student will create and solve single-step and multistep practical problems involving addition, subtraction, and multiplication, and single-step practical problems involving division with whole numbers. |  |  |  |
| 4.5a The student will determine common multiples and factors, including least common multiple and greatest common factor; |  |  |  |
| 4.5b The student will add and subtract fractions and mixed numbers having like and unlike denominators; and |  |  |  |
| 4.5c The student will solve single-step practical problems involving addition and subtraction with fractions and mixed numbers. |  |  |  |
| 4.6a The student will add and subtract with decimals; and |  |  |  |
| 4.6b The student will solve single-step and multistep practical problems involving addition and subtraction with decimals. |  |  |  |
| 4.7 The student will solve practical problems that involve determining perimeter and area in U.S. Customary and metric units. |  |  |  |
| 4.8a The student will estimate and measure length and describe the result in U.S. Customary and metric units; |  |  |  |
| 4.8b The student will estimate and measure weight/mass and describe the result in U.S. Customary and metric units; |  |  |  |
| 4.8c The student will given the equivalent measure of one unit, identify equivalent measures of length, weight/mass, and liquid volume between units within the U.S. Customary system; and |  |  |  |
| 4.8d The student will solve practical problems that involve length, weight/mass, and liquid volume in U.S. Customary units. |  |  |  |
| 4.9 The student will solve practical problems related to elapsed time in hours and minutes within a 12-hour period. |  |  |  |
| 4.10a The student will identify and describe points, lines, line segments, rays, and angles, including endpoints and vertices; and |  |  |  |
| 4.10b The student will identify and describe intersecting, parallel, and perpendicular lines. |  |  |  |
| 4.11 The student will identify, describe, compare, and contrast plane and solid figures according to their characteristics (number of angles, vertices, edges, and the number and shape of faces) using concrete models and pictorial representations. |  |  |  |
| 4.12 The student will classify quadrilaterals as parallelograms, rectangles, squares, rhombi, and/or trapezoids. |  |  |  |
| 4.13a The student will determine the likelihood of an outcome of a simple event; |  |  |  |
| 4.13b The student will represent probability as a number between 0 and 1, inclusive; and |  |  |  |
| 4.13c The student will create a model or practical problem to represent a given probability. |  |  |  |
| 4.14a The student will collect, organize, and represent data in bar graphs and line graphs; |  |  |  |
| 4.14b The student will interpret data represented in bar graphs and line graphs; and |  |  |  |
| 4.14c The student will compare two different representations of the same data (e.g., a set of data displayed on a chart and a bar graph, a chart and a line graph, or a pictograph and a bar graph). |  |  |  |
| 4.15 The student will identify, describe, create, and extend patterns found in objects, pictures, numbers, and tables. |  |  |  |
| 4.16 The student will recognize and demonstrate the meaning of equality in an equation. |  |  |  |