**Virginia Mathematics Standards of Learning Tracking Log**

**Bridging from Grade 7 to Grade 8**

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 8 Bridging Standards document can be used in conjunction with this Tracking Log to help link the content from grade 7 to grade 8 and to plan instruction for the current school year.

|  | **Addressed during previous school year** | **Not Addressed/ Insufficient Exposure during previous school year** | **Comments** |
| --- | --- | --- | --- |
| 7.1a The student will investigate and describe the concept of negative exponents for powers of ten; |  |  |  |
| 7.1b The student will compare and order numbers greater than zero written in scientific notation; |  |  |  |
| 7.1c The student will compare and order rational numbers; |  |  |  |
| 7.1d The student will determine square roots of perfect squares; and |  |  |  |
| 7.1e The student will identify and describe absolute value of rational numbers. |  |  |  |
| 7.2 The student will solve practical problems involving operations with rational numbers.  |  |  |  |
| 7.3 The student will solve single-step and multistep practical problems, using proportional reasoning. |  |  |  |
| 7.4a The student will describe and determine the volume and surface area of rectangular prisms and cylinders; and |  |  |  |
| 7.4b The student will solve problems, including practical problems, involving the volume and surface area of rectangular prisms and cylinders. |  |  |  |
| 7.5 The student will solve problems, including practical problems, involving the relationship between corresponding sides and corresponding angles of similar quadrilaterals and triangles. |  |  |  |
| 7.6a The student will compare and contrast quadrilaterals based on their properties; and  |  |  |  |
| 7.6b The student will determine unknown side lengths or angle measures of quadrilaterals. |  |  |  |
| 7.7 The student will apply translations and reflections of right triangles or rectangles in the coordinate plane. |  |  |  |
| 7.8a The student will determine the theoretical and experimental probabilities of an event; and  |  |  |  |
| 7.8b The student will investigate and describe the difference between the experimental probability and theoretical probability of an event. |  |  |  |
| 7.9a The student, given data in a practical situation, will represent data in a histogram;  |  |  |  |
| 7.9b The student, given data in a practical situation, will make observations and inferences about data represented in a histogram; and |  |  |  |
| 7.9c The student, given data in a practical situation, will compare histograms with the same data represented in stem-and-leaf plots, line plots, and circle graphs. |  |  |  |
| 7.10a The student will determine the slope, m, as rate of change in a proportional relationship between two quantities and write an equation in the form y = mx to represent the relationship; |  |  |  |
| 7.10b The student will graph a line representing a proportional relationship between two quantities given the slope and an ordered pair, or given the equation in y = mx form where m represents the slope as rate of change;  |  |  |  |
| 7.10c The student will determine the y-intercept, b, in an additive relationship between two quantities and write an equation in the form y = x + b to represent the relationship; |  |  |  |
| 7.10d The student will graph a line representing an additive relationship between two quantities given the y-intercept and an ordered pair, or given the equation in the form y = x + b, where b represents the y-intercept; and |  |  |  |
| 7.10e The student will make connections between and among representations of a proportional or additive relationship between two quantities using verbal descriptions, tables, equations, and graphs.  |  |  |  |
| 7.11 The student will evaluate algebraic expressions for given replacement values of the variables.  |  |  |  |
| 7.12 The student will solve two-step linear equations in one variable, including practical problems that require the solution of a two-step linear equation in one variable. |  |  |  |
| 7.13 The student will solve one- and two-step linear inequalities in one variable, including practical problems, involving addition, subtraction, multiplication, and division, and graph the solution on a number line. |  |  |  |