**Virginia Mathematics Standards of Learning Tracking Log**

**Bridging from Algebra I to Geometry**

**2020-2021 School Year to 2021-2022 School Year**

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.

|  | **Addressed during previous school year** | **Not Addressed/ Insufficient Exposure during previous school year** | **Comments** |
| --- | --- | --- | --- |
| A.1a The student will represent verbal quantitative situations algebraically; and  |  |  |  |
| A.1b The student will evaluate algebraic expressions for given replacement values of the variables.  |  |  |  |
| A.2a The student will perform operations on polynomials, including applying the laws of exponents to perform operations on expressions; |  |  |  |
| A.2b The student will perform operations on polynomials, including adding, subtracting, multiplying, and dividing polynomials; and |  |  |  |
| A.2c The student will perform operations on polynomials, including factoring completely first- and second-degree binomials and trinomials in one variable.  |  |  |  |
| A.3a The student will simplify square roots of whole numbers and monomial algebraic expressions;  |  |  |  |
| A.3b The student will simplify cube roots of integers; and |  |  |  |
| A.3c The student will simplify numerical expressions containing square or cube roots. |  |  |  |
| A.4a The student will solve multistep linear equations in one variable algebraically; |  |  |  |
| A.4b The student will solve quadratic equations in one variable algebraically; |  |  |  |
| A.4c The student will solve literal equations for a specified variable; |  |  |  |
| A.4d The student will solve systems of two linear equations in two variables algebraically and graphically; and |  |  |  |
| A.4e The student will solve practical problems involving equations and systems of equations.  |  |  |  |
| A.5a The student will solve multistep linear inequalities in one variable algebraically and represent the solution graphically; |  |  |  |
| A.5b The student will represent the solution of linear inequalities in two variables graphically; |  |  |  |
| A.5c The student will solve practical problems involving inequalities; and |  |  |  |
| A.5d The student will represent the solution to a system of inequalities graphically. |  |  |  |
| A.6a The student will determine the slope of a line when given an equation of the line, the graph of the line, or two points on the line;  |  |  |  |
| A.6b The student will write the equation of a line when given the graph of the line, two points on the line, or the slope and a point on the line; and |  |  |  |
| A.6c The student will graph linear equations in two variables.  |  |  |  |
| A.7a The student will investigate and analyze linear and quadratic function families and their characteristics both algebraically and graphically, including determining whether a relation is a function; |  |  |  |
| A.7b The student will investigate and analyze linear and quadratic function families and their characteristics both algebraically and graphically, including domain and range; |  |  |  |
| A.7c The student will investigate and analyze linear and quadratic function families and their characteristics both algebraically and graphically, including zeros; |  |  |  |
| A.7d The student will investigate and analyze linear and quadratic function families and their characteristics both algebraically and graphically, including intercepts;  |  |  |  |
| A.7e The student will investigate and analyze linear and quadratic function families and their characteristics both algebraically and graphically, including values of a function for elements in its domain; and |  |  |  |
| A.7f The student will investigate and analyze linear and quadratic function families and their characteristics both algebraically and graphically, including connections between and among multiple representations of functions using verbal descriptions, tables, equations, and graphs. |  |  |  |
| A.8 The student, given a data set or practical situation, will analyze a relation to determine whether a direct or inverse variation exists, and represent a direct variation algebraically and graphically and an inverse variation algebraically. |  |  |  |
| A.9 The student will collect and analyze data, determine the equation of the curve of best fit in order to make predictions, and solve practical problems, using mathematical models of linear and quadratic functions. |  |  |  |