

Hopkins Middle School
8th Grade Power Standards - Math

GLCE	Verbal Description	Unit in Text
D.AN.08.02	Recognize practices of collecting and displaying data that may bias the presentation or analysis.	1
N.ME.08.01	Understand the meaning of a square root of a number and its connection to the square whose area is the number; understand the meaning of a cube root and its connection to the volume of a cube.	2
D.AN.08.01	Determine which measure of central tendency (mean, median mode) best represents a data set, e.g., salaries, home prices; justify the choice made.	2
N.FL.08.05	Estimate and solve problems with square roots and cube roots using calculators.	2
N.FL.08.06	Find square roots of perfect squares and approximate the square roots of non-perfect squares by locating between consecutive integers, e.g., $\sqrt{130}$ is between 11 and 12.	2
N.ME.08.03	Understand that in decimal form, rational numbers either terminate or eventually repeat, and that calculators truncate or round repeating decimals; locate rational numbers on the number line; know fraction form of common repeating decimals, e.g. 0.11111..., 1/9.	2
N.ME.08.04	Understand that irrational numbers are those that cannot be expressed as the quotient of two integers, and cannot be represented by terminating or repeating decimals; approximate the position of familiar irrational numbers, e.g., $\sqrt{2}$, $\sqrt{3}$, π , on the number line.	2
N.FL.08.09	Solve problems involving compounded interest or multiple discounts.	3
N.FL.08.11	Solve problems involving ratio units, such as miles per hour, dollars per pound, or persons per square mile.	3
N.MR.08.07	Understand percent increase and percent decrease in both sum and product form, e.g., 3% increase of a quantity x is $x + 0.03x = 1.03x$.	3
N.MR.08.08	Solve problems involving percent increases and decreases.	3
N.MR.08.10	Calculate weighted averages such as course grades.	3

Hopkins Middle School
High School Algebra Expectations Also Covered in 8th Grade Math

HSCE	Verbal Description	Unit in Text
A1.1.1	Give a verbal description of an expression that is presented in symbolic form, write an algebraic expression from a verbal description, and evaluate expressions given values of the variables.	1
L1.1.3	Explain how the properties of associativity, commutativity, and distributivity, as well as identity and inverse elements, are used in arithmetic and algebraic calculations.	1
L1.1.1	Know the different properties that hold in different number systems and recognize that the applicable properties change in the transition from the positive integers to all integers, to the rational numbers, and to the real numbers.	2
L1.1.2	Explain why the multiplicative inverse of a number has the same sign as the number, while the additive inverse of a number has the opposite sign.	2
L1.1.4	Describe the reasons for the different effects of multiplication by, or exponentiation of, a positive number by a number less than 0, a number between 0 and 1, and a number greater than 1.	2
L1.1.5	Justify numerical relationships.	2
L2.1.1	Explain the meaning and uses of weighted averages.	3
A.1.2.8	Solve an equation involving several variables (with numerical or letter coefficients) for a designated variable. Justify the steps in the solution.	3
A2.1.1	Determine whether a relationship (given in contextual, symbolic, tabular, or graphical form) is a function and identify its domain and range.	4
A2.1.2	Read, interpret, and use function notation and evaluate a function at a value in its domain.	4
A2.1.3	Represent functions in symbols, graphs, tables, diagrams, or words and translate among representations.	4
L1.2.4	Organize and summarize a data set in a table, plot, chart, or spreadsheet; find patterns in a display of data; understand and critique data displays in the media.	4
A2.3.2	Describe the tabular pattern associated with functions having a constant rate of change (linear); or variable rates of change.	4