



Math 6 Essential Learnings

Quarter View

Our district is committed to providing a guaranteed and viable curriculum for all students. A guaranteed curriculum ensures all students have the opportunity to learn the same essential learnings. A viable curriculum ensures it is possible for all students to learn in the allotted time. The quarter view below lists the essential learnings (EL's) students will be taught and assessed during each nine (9) week quarter. The goal is for every student to become proficient in every essential learning by the end of the school year.

Quarter 1

- EL # 1 Computation (Module 3)
 - 6.NS.4 Solve real-world problems with positive fractions and decimals by using one or two operations. (E) .
- EL #2 Fractions, Decimals, and Percents (Module 2)
 - 6.RP.1 Convert between any two representations (fractions, decimals, percents) of positive rational numbers without the use of a calculator. (E)

Quarter 2

- EL #3 Integers and coordinate planes (Module 4)
 - 6.NS.1 Use positive and negative numbers to represent and compare quantities in real-world contexts, explaining the meaning of 0 in each situation. (E)
 - 6.NS.3 Compare and order rational numbers and plot them on a number line. Write, interpret, and explain statements of order for rational numbers in real-world contexts.
 - 6.AF.3 Solve equations of the form $x + p = q$, $x - p = q$, $px = q$, and $x/p = q$ fluently for cases in which p , q and x are all nonnegative rational numbers. Represent real-world problems using equations of these forms and solve such problems. (E)
- EL # 4 Expressions and Order of Operations (Module 5)
 - 6.AF.1 Define and use multiple variables when writing expressions to represent real-world and other mathematical problems, and evaluate them for given values. (E)
 - 6.NS.5 Apply the order of operations and properties of operations (i.e., identity, inverse, commutative properties of addition and multiplication, associative properties of addition and multiplication, and distributive property) to evaluate numerical expressions with nonnegative rational numbers, including those using grouping symbols, such as parentheses, and involving whole number exponents. (E)
- EL # 5 Equations and Inequalities (Module 6)
 - 6.AF.3 Solve equations of the form $x + p = q$, $x - p = q$, $px = q$, and $x/p = q$ fluently for cases in which p , q and x are all nonnegative rational numbers. Represent real-world problems using equations of these forms and solve such problems. (E)
 - 6.AF.4 Write an inequality of the form $x > c$, $x \geq c$, $x < c$, or $x \leq c$, where c is a rational number, to represent a constraint or condition in a real-world or other mathematical problem. Explain that inequalities have infinitely many solutions and how to represent solutions on a number line diagram.

Quarter 3

- EL #6: Data (Data Folder, Module 10)
 - 6.DS.2 Formulate statistical questions; collect and organize the data (e.g., using technology), and display and interpret the data with graphical representations (e.g., using technology). (E)
 - 6.DS.3 Summarize numerical data sets in relation to their context in multiple ways, such as:
 - a. report the number of observations;
 - b. describe the nature of the attribute under investigation, including how it was measured and its units of measurement;
 - c. determine quantitative measures of center (mean and/or median) and spread (range and interquartile range);
 - d. describe any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered; and
 - e. relate the choice of measures of center and spread to the shape of the data distribution and the context in which the data were gathered. (E)
- EL # 7 Ratios and Rates (Module 1)
 - 6.RP.5 Use variables to represent two quantities in a proportional relationship in a real-world problem; write an equation to express one quantity, the dependent variable, in terms of the other quantity, the independent variable. Analyze the relationship between the dependent and independent variables 6.AF.10 Use variables to represent two quantities in a proportional relationship in a real-world problem; write an equation to express one quantity, the dependent variable, in terms of the other quantity, the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. (E)
 - 6.RP.4 Solve real-world and other mathematical problems involving rates and ratios using models and strategies such as reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. (E)
 - Add 6.RP.2
 - Add 6.RP.3

Quarter 4

- EL #8: Geometry & Coordinate Planes (Modules 8 and 9)
 - 6.GM.4 Find the volume of a right rectangular prism with fractional edge lengths using unit cubes of the appropriate unit fraction edge lengths (e.g., using technology or concrete materials) and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = lwh$ and $V = Bh$ to find volumes of right rectangular prisms with fractional edge lengths to solve real-world and other mathematical problems. (E)
 - 6.GM.2
 - 6.GM.3
 - 6.AF.5 Solve real-world and other mathematical problems by graphing points with rational number coordinates on a coordinate plane. Include the use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate. (E)

