knowre
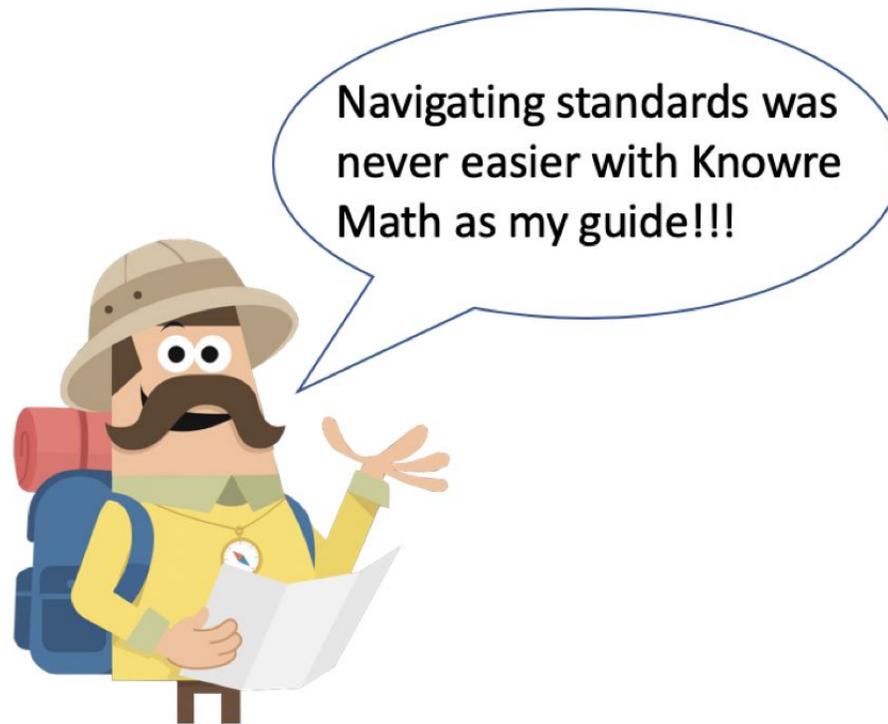
Knowre Math, an adaptive, digital core supplement is aligned to the Common Core Standards for Mathematics and provides extensive coverage of the skills and courses that students are required to master.
The targeted standards for different grade levels are integrated into all chapters/courses/applications to bring educational equity to all students in the classroom or at home.

Navigating standards was never easier with Knowre Math as my guide!!!

Algebra 1 ~ Common Core State Standards: Mathematics		Knowre Algebra 1 Lessons
N.RN.1	Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents.	Chapter 8
N.RN.2	Rewrite expressions involving radicals and rational exponents using the properties of exponents.	Chapter 8
N.RN.3	Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.	Chapter 8
N.Q.1	Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.	Covered in Application Questions
N.Q.2	Define appropriate quantities for the purpose of descriptive modeling.	Covered in Application Questions
N.Q.3	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.	Not Covered
A.SSE.1.a	Interpret parts of an expression, such as terms, factors, and coefficients.	Chapter 1, Chapter 9, Chapter 10, Chapter 11
A.SSE.1.b	Interpret complicated expressions by viewing one or more of their parts as a single entity.	Chapter 2, Chapter 4, Chapter 7
A.SSE.2	Use the structure of an expression to identify ways to rewrite it.	Chapter 1, Chapter 9, Chapter 10
A.SSE.3.a	Factor a quadratic expression to reveal the zeros of the function it defines.	Chapter 11
A.SSE.3.b	Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.	Chapter 11

A.SSE.3.c	Use the properties of exponents to transform expressions for exponential functions.	Chapter 7
A.APR.1	Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.	Chapter 9
A.CED.1	Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.	Chapter 2, Chapter 4, Chapter 6, Chapter 11
A.CED.2	Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.	Chapter 3
		Chapter 3
A.CED.3	Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.	Chapter 2, Chapter 4, Chapter 5
A.CED.4	Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.	Chapter 2
A.REI.1	Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.	Chapter 2
A.REI.3	Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	Chapter 2
		Chapter 4
A.REI.4.a	Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form.	Chapter 11
A.REI.4.b	Solve quadratic equations by inspection, taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b.	Chapter 11
A.REI.5	Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.	Chapter 5
A.REI.6	Solve systems of linear equations exactly and approximately, focusing on pairs of linear equations in two variables.	Chapter 5

A.REI.7	Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically.	Chapter 11
A.REI.10	Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).	Chapter 3, Chapter 5, Chapter 11, Chapter 12
A.REI.11	Explain why the x-coordinates of the points where the graphs of the equations y = f(x) and y = g(x) intersect are the solutions of the equation f(x) = g(x); find the solutions approximately. Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.	Chapter 5, Chapter 11
A.REI.12	Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.	Chapter 5
F.IF.1	Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then f(x) denotes the output of f corresponding to the input x. The graph of f is the graph of the equation y = f(x).	Chapter 1
F.IF.2	Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.	Chapter 1
F.IF.3	Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers.	Chapter 7
F.IF.4	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.	Chapter 3, Chapter 7, Chapter 11, Chapter 12
F.IF.5	Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes.	Chapter 1
F.IF.6	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.	Chapter 3
F.IF.7.a	Graph linear and quadratic functions and show intercepts, maxima, and minima.	Chapter 3

F.IF.7.b	Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.	Chapter 12
F.IF.7.e	Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.	Chapter 7
F.IF.8.a	Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.	Chapter 11
F.IF.8.b	Use the properties of exponents to interpret expressions for exponential functions.	Chapter 7
F.IF.9	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).	Chapter 3, Chapter 11
F.BF.1.a	Determine an explicit expression, a recursive process, or steps for calculation from a context.	Chapter 7
F.BF.1.b	Combine standard function types using arithmetic operations. For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.	Chapter 7
F.BF.2	Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.	Chapter 7
F.BF.3	Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k\,f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them.	Chapter 11
F.BF.4.a	Solve an equation of the form $f(x) = c$ for a simple function f that has an inverse and write an expression for the inverse.	Chapter 3
F.LE.1.a	Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.	Chapter 7
F.LE.1.b	Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.	Chapter 7
F.LE.1.c	Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.	Chapter 7
F.LE.2	Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).	Chapter 3

F.LE.3	Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.	Not Covered
F.LE.5	Interpret the parameters in a linear or exponential function in terms of a context.	Chapter 7
S.ID.1	Represent data with plots on the real number line (dot plots, histograms, and boxplots).	Chapter 13
S.ID.2	Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.	Chapter 13
S.ID.3	Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).	Chapter 13
S.ID.5	Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.	Chapter 13
S.ID.6.a	Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.	Chapter 3
S.ID.6.b	Informally assess the fit of a function by plotting and analyzing residuals.	Chapter 3
S.ID.6.c	Fit a linear function for a scatter plot that suggests a linear association.	Chapter 3
S.ID.7	Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.	Chapter 3
S.ID.8	Compute (using technology) and interpret the correlation coefficient of a linear fit.	Chapter 3
S.ID.9	Distinguish between correlation and causation.	Chapter 3