Math Priority Standards – Grade 6

Below is a table of the priority standards.

Priority Standards	Description
6.RP.2	Use unit rate language ("for each one", "for every one" and "per") and unit rate notation to demonstrate understanding the concept of a unit rate $\frac{a}{b}$ associated with a ratio $a:b\ with\ b \neq 0$, For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $\frac{3}{4}$ cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger." (Expectations for unit rates in this grade are limited to non-complex fractions.)- _KSDE Flipbooks_*
6.RP.3	Use ratio and rate reasoning to solve real-world and mathematical problems, _(e.g. by reasoning about tables of equivalent ratios, **tape diagrams**, **double number line diagram**, or using calculations.)_ • 6.RP.3a. Make tables of equivalent ratios relating quantities with whole-number measurements, find the missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios. Solve unit rate problems including those involving unit pricing and constant speed. _For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?_ • 6.RP.3b. Find a percent of a quantity as a rate per 100 _(e.g. 30% of a quantity means $\frac{30}{100}$ times the quantity)_; solve problems involving finding the whole, given a part and the percent. • 6.RP.3c. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities. - _KSDE Flipbooks_*
6.NS.3	Fluently (efficiently, accurately, and flexibly) add, subtract, multiply, and divide multi-digit decimals using an efficient algorithm for each operation. - _KSDE Flipbooks_*
6.NS.5	Understand positive and negative numbers to describe quantities having opposite directions or values _(e.g. temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge);_ • 6.NS.5a. Use positive and negative numbers to represent quantities in real-world contexts,

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	• 6.NS.5b. Explaining the meaning of 0 in each situation. - [KSDE Flipbooks](#)*
6.NS.6	Understand a rational number as a point on the number line and a coordinate pair as a location on a coordinate plane. • 6.NS.6a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, *(e.g.* $-(-3) = 3,$*)* and that 0 is its own opposite. • 6.NS.6b. Recognize signs of numbers in ordered pairs indicate locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes. • 6.NS.6c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane. - [KSDE Flipbooks](#) *
6.NS.7	Understand ordering and absolute value of rational numbers. • 6.NS.7a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret* $-3 > -7$ *as a statement that –3 is located to the right of –7 on a number line oriented from left to right.* • 6.NS.7b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write* $-3°C > -7°C$ *to express the fact that* $-3°C$ *is warmer than* $-7°C.$ • 6.NS.7.c. Explain the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of –30 dollars, write* $|-30| = 30$ *to describe the size of the debt in dollars.* • 6.NS.7d. Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance less than – 30 dollars represents a debt greater than 30 dollars.-* [KSDE Flipbooks](#)*
6.EE.2	Write, read, and evaluate expressions in which letters stand for numbers. • 6.EE.2a. Write expressions that record operations with numbers and with letters standing for numbers*. For example, express the calculation "Subtract y from 5" as* $5 - y.$ • 6.EE.2b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression* $2(8 + 7)$ *as a product of two factors; view* $(8 + 7)$ *as both a single entity and a sum of two terms.* • 6.EE.2c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving

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	whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = \frac{1}{2}$.* - *KSDE Flipbooks**
6.EE.3	Apply the properties of operations and combine like terms, with the conventions of algebraic notation, to identify and generate equivalent expressions. *For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply properties of operations to $y + y + y$ to produce the equivalent expression 3y.* - *KSDE Flipbooks**
6.EE.6	Write and solve one-step equations involving non-negative rational numbers using addition, subtraction, multiplication and division. - *KSDE Flipbooks**
6.EE.8	Use variables to represent two quantities in a real-world problem that change in relationship to one another. • 6.EE.8a. Identify the independent and dependent variable. **(6.EE.9)** • 6.EE.8b. Write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.* • 6.EE.8c. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. -*KSDE Flipbooks**
6.G.1	Find the area of all triangles, special quadrilaterals (including parallelograms, kites and **trapezoids**), and polygons whose edges meet at right angles (**rectilinear figure** (*See Geometry Progression K-6 Pg. 19 Paragraph 4) polygons*) by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems. -*KSDE Flipbooks**
6.G.4	Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems. - *KSDE Flipbooks**
6.SP.2	Analyze a set of data collected to answer a **statistical question** with a distribution which can be described by its center (mean, median and/or mode), spread (range and/or **interquartile range**), and overall shape (**cluster**, **peak**, gap, symmetry, **skew (data)** and/or outlier). -*KSDE Flipbooks**
6.SP.5	Summarize numerical data sets in relation to their context, such as by: • 6.SP.5a. Reporting the number of observations. • 6.SP.5b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. • 6.SP.5c. Giving quantitative measures of center (mean, median and/or mode) and variability (range and/or **interquartile range**), as well as

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	describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
	• 6.SP.5d. Relating the choice of measures of center and variability to the distribution of the data.
	- *KSDE Flipbooks**

Kansas Department of Education has created 'Flipbooks' for current standards that detail each standard, including examples and resources to support in understanding the depth of the standard.