

| Suggested Number of Days | Fifth Grade Advanced Scope and Sequence (note blue text signifies intentional spiraling of fraction skills) |
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| Ongoing TEKS | 5.1(A) apply mathematics to problems arising in everyday life, society, and the workplace 5.1(B) use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution 5.1(C) select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems 5.1(D) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate 5.1(E) create and use representations to organize, record, and communicate mathematical ideas 5.1(F) analyze mathematical relationships to connect and communicate mathematical ideas 5.1(G) display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication |
| First Nine Weeks : August 15 - October 10 | |
| 12 days | Place Value- Decimals and Fractions 5.2(A) represent the value of the digit in decimals through the thousandths using expanded notation and numerals (include fraction form of expanded notation) 5.2(B) compare and order two decimals to thousandths and represent comparisons using the symbols $>$, $<$, or $=$ (create equivalent fractions with tenths, halves, fourths) 5.2(C) round decimals to tenths or hundredths 5.3(A) estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division (include benchmark fractions: tenths, halves, fourths: use number lines to estimate) 5.3(K) add and subtract positive rational numbers fluently (include fractions with like denominators) |
| 20 days | Extending Whole Number Operations 5.3(A) estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division 5.3(B) multiply with fluency a three-digit number by a two-digit number using the standard algorithm 5.3(C) solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm (introduce using the remainder as a fraction in simplest form) 5.3(K) add and subtract positive rational numbers fluently (include fractions with denominators that are multiple of others: halves/fourths, thirds/sixths, fourths/eighths, fifths/tenths. Introduce adding with unlike denominators and explain why common denominators are needed.) 5.4(A) identify prime and composite numbers (with divisibility rules) |
| 18 days 7 days/11 days | Decimal Multiplication and Division 5.3(A) estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division 5.3(D) represent multiplication of decimals with products to the hundredths using objects and pictorial models, including area models 5.3(E) solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers 5.3(F) represent quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using objects and pictorial models, including area models 5.3(G) solve for quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using strategies and algorithms, including the standard algorithm 6.3(E) multiply and divide positive rational numbers fluently Continue practicing fractions skills for 5.3(K), 5.3(C) (using denominators that are multiples such as 2 and 12, 6 and 24) |
| Second Nine Weeks : October 16 - December 22 | |
| Decimal Multiplication and Division continued | |
| 17 days | Algebraic Reasoning 5.4(B) represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity (incorporate using formulas to solve for area and perimeter when given side lengths) 5.4(E) describe the meaning of parentheses and brackets in a numeric expression 5.4(F) simplify numerical expressions that do not involve exponents, including up to two levels of grouping (include benchmark fractions: halves and fourths) 6.7(A) generate equivalent numerical expressions using order of operations, including whole number exponents, and prime factorization 6.7(B) distinguish between expressions and equations verbally, numerically, and algebraically 6.7(C) determine if two expressions are equivalent using concrete models, pictorial models, and algebraic representations 6.7(D) generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties |

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| 16 days | <p>Adding and Subtracting Fractions</p> <p>5.3(A) estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division</p> <p>5.3(H) represent and solve addition and subtraction of fractions with unequal denominators referring to the same whole using objects and pictorial models and properties of operations</p> <p>5.3(K) add and subtract positive rational numbers fluently</p> <p>5.4(A) identify prime and composite numbers</p> <p>5.4(F) simplify numerical expressions that do not involve exponents, including up to two levels of grouping</p> <p>6.4(G) generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money</p> <p>6.7(A) generate equivalent numerical expressions using order of operations, including whole number exponents, and prime factorization</p> |
| Third Nine Weeks : January 9 - March 8 | |
| 14 days | <p>Multiplication and Division with Fractions and Whole Numbers</p> <p>5.3(A) estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division</p> <p>5.3(I) represent and solve multiplication of a whole number and a fraction that refers to the same whole using objects and pictorial models, including area models</p> <p>5.3(J) represent division of a unit fraction by a whole number and the division of a whole number by a unit fraction such as $1/3 \div 7$ and $7 \div 1/3$ using objects and pictorial models, including area models</p> <p>5.3(L) divide whole numbers by unit fractions and unit fractions by whole numbers</p> <p>5.4(F) simplify numerical expressions that do not involve exponents, including up to two levels of grouping</p> <p>6.2(E) extend representations for division to include fraction notation such as a/b represents the same number as $a \div b$ where $b \neq 0$</p> <p>6.3(A) recognize that dividing by a rational number and multiplying by its reciprocal result in equivalent values</p> <p>6.3(E) multiply and divide positive rational numbers fluently</p> <p>6.7(A) generate equivalent numerical expressions using order of operations, including whole number exponents, and prime factorization</p> |
| 20 days | <p>Geometry and Measurement</p> <p>5.4(G) use concrete objects and pictorial models to develop the formulas for the volume of a rectangular prism, including the special form for a cube ($V = l \times w \times h$, $V = s \times s \times s$, and $V = Bh$) (not assessed)</p> <p>5.4(H) represent and solve problems related to perimeter and/or area and related to volume</p> <p>5.5(A) classify two-dimensional figures in a hierarchy of sets and subsets using graphic organizers based on their attributes and properties</p> <p>5.6(A) recognize a cube with side length of one unit as a unit cube having one cubic unit of volume and the volume of a three-dimensional figure as the number of unit cubes (n cubic units) needed to fill it with no gaps or overlaps if possible</p> <p>5.6(B) determine the volume of a rectangular prism with whole number side lengths in problems related to the number of layers times the number of unit cubes in the area of the base</p> <p>5.7(A) solve problems by calculating conversions within a measurement system, customary or metric</p> |
| 8 days | <p>Patterns on a Coordinate Plane</p> <p>5.4(C) generate a numerical pattern when given a rule in the form $y = ax$ or $y = x + a$ and graph</p> <p>5.4(D) recognize the difference between additive and multiplicative numerical patterns given in a table or graph</p> <p>5.8(A) describe the key attributes of the coordinate plane, including perpendicular number lines (axes) where the intersection (origin) of the two lines coincides with zero on each number line and the given point $(0, 0)$; the x-coordinate, the first number in an ordered pair, indicates movement parallel to the x-axis starting at the origin; and the y-coordinate, the second number, indicates movement parallel to the y-axis starting at the origin</p> <p>5.8(B) describe the process for graphing ordered pairs of numbers in the first quadrant of the coordinate plane</p> <p>5.8(C) graph in the first quadrant of the coordinate plane ordered pairs of numbers arising from mathematical and real-world problems, including those generated by number patterns or found in an input-output table</p> <p>6.2(C) locate, compare, and order integers and rational numbers using a number line</p> <p>6.4(A) compare two rules verbally, numerically, graphically, and symbolically in the form of $y = ax$ or $y = x + a$ in order to differentiate between additive and multiplicative relationships</p> <p>6.11(A) graph points in all four quadrants using ordered pairs of rational number</p> |
| Fourth Nine Weeks : March 18 - May 23 | |

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| 9 days | <p>Representing Data</p> <p>5.9(A) represent categorical data with bar graphs or frequency tables and numerical data, including data sets of measurements in fractions or decimals, with dot plots or stem-and-leaf plots</p> <p>5.9(B) represent discrete paired data on a scatterplot</p> <p>5.9(C) solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or scatterplot</p> <p>6.12(A) represent numeric data graphically, including dot plots, stem-and-leaf plots, histograms, and box plots</p> <p>6.12(C) summarize numeric data with numerical summaries, including the mean and median (measures of center) and the range and interquartile range (IQR) (measures of spread), and use these summaries to describe the center, spread, and shape of the data distribution</p> <p>6.12(D) summarize categorical data with numerical and graphical summaries, including the mode, the percent of values in each category (relative frequency table), and the percent bar graph, and use these summaries to describe the data distribution</p> <p>6.13(A) interpret numeric data summarized in dot plots, stem-and-leaf plots, histograms, and box plots</p> |
| 6 days | <p>Financial Literacy</p> <p>5.10(A) define income tax, payroll tax, sales tax, and property tax</p> <p>5.10(B) explain the difference between gross income and net income</p> <p>5.10(C) identify the advantages and disadvantages of different methods of payment, including check, credit card, debit card, and electronic payments (not assessed)</p> <p>5.10(D) develop a system for keeping and using financial records (not assessed)</p> <p>5.10(E) describe actions that might be taken to balance a budget when expenses exceed income</p> <p>5.10(F) balance a simple budget</p> |
| 15 days | <p>Integers and Review</p> <p>6.2(A) classify whole numbers, integers, and rational numbers using a visual representation such as a Venn diagram to describe relationships between sets of numbers</p> <p>6.2(B) identify a number, its opposite, and its absolute value</p> <p>6.2(C) locate, compare, and order integers and rational numbers using a number line</p> <p>6.2(D) order a set of rational numbers arising from mathematical and real-world contexts</p> <p>6.3(C) represent integer operations with concrete models and connect the actions with the models to standardized algorithms</p> <p>6.3(D) add, subtract, multiply, and divide integers fluently</p> <p>6.11(A) graph points in all four quadrants using ordered pairs of rational number</p> |
| After STAAR | <p>Math Placement Testing</p> <p>Projects such as: Hands on Equations, build bridges, teach 4th grade students, PEMDAS publicity campaign, continued review</p> |