

6th Grade Accelerated Math Curriculum

Unit 1 - Measurement and Data		1st SW 12 Days
Unit Summary: In this unit, students solve problems by collecting, organizing, displaying and interpreting data. Students summarize categorical data with numerical and graphical summaries and use these summaries to describe the data distribution.		
*Unit 1: 12 Days	Represent numeric data graphically, including dot plots, stem-and-leaf plots, histograms, and box plots. (Supporting Standard)	6.12A
	Use the graphical representation of numeric data to describe the center, spread, and shape of the data distribution. (Supporting Standard)	6.12B
	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. (Readiness Standard)	6.12C
	Interpret numeric data summarized in dot plots, stem-and-leaf plots, histograms, and box plots. (Readiness Standard)	6.13A
	Distinguish between situations that yield data with and without variability. (Supporting Standard)	6.13B
	Solve problems using data represented in bar graphs, dot plots, and circle graphs, including part-to-whole and part-to-part comparisons and equivalents. (Readiness Standard)	7.6G
	Compare two groups of numeric data using comparative dot plots or box plots by comparing their shapes, centers, and spreads. (Readiness Standard)	7.12A

*Because of the nature of these TEKS, they continue to spiral in and out of instruction throughout the unit. Therefore, there have been no specific clusters made.

6.12D and 7.6G (circle graphs) is taught in unit 3

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Unit 2 - Numbers and Operations

1st/2nd SW
36 Days

Unit Summary: This unit focuses on using different sets of numbers to solve problems that arise from mathematical and real-world contexts. Students represent numbers in different ways and solve problems involving operations with positive and negative rational numbers. They also compare, order, and locate rational numbers on number lines and coordinate planes.

Cluster #1 7-9 days	Locate, compare, and order integers and rational numbers using a number line (Supporting Standard)	6.2C
	Graph points in all four quadrants using ordered pairs of rational numbers (Readiness Standard)	6.11
	Order a set of rational numbers arising from mathematical and real-world contexts (Readiness Standard)	6.2D
	Extend representations for division to include fraction notation such as $\frac{a}{b}$ represents the same number as $a \div b$ where $b \neq 0$ (Supporting Standard)	6.2E
	Generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money *Also in Unit 3 (Readiness Standard)	6.4G
	Identify a number, its opposite, and its absolute value (Supporting Standard)	6.2B
	Classify whole numbers, integers, and rational numbers using a visual representation such as a Venn diagram to describe relationships between sets of numbers (Supporting Standard)	6.2A
	Extend previous knowledge of sets and subsets using a visual representation to describe relationships between sets of rational numbers (Supporting Standard)	7.2
Cluster #2 24-27 days	Represent integer operations with concrete models and connect the actions with the models to standardized algorithms (Supporting Standard)	6.3C
	Add, subtract, multiply, and divide integers fluently (Readiness Standard)	6.3D
	Recognize that dividing by a rational number and multiplying by its reciprocal result in equivalent values (Supporting Standard)	6.3A
	Determine, with and without computation, whether a quantity is increased or decreased when multiplied by a fraction, including values greater than or less than one (Supporting Standard)	6.3B
	Multiply and divide positive rational numbers fluently (Readiness Standard)	6.3E
	Add, subtract, multiply, and divide rational numbers fluently (Supporting Standard)	7.3A
	Apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers (Readiness Standard)	7.3B

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Unit 3 - Proportionality

2nd/3rd SW
26 Days

Unit Summary: This unit focuses on proportional relationships including ratios, rates, and percents. Students solve problems involving multiple contexts using concrete models, pictorial models, scale factors, tables, and graphs.

On-going	Add, subtract, multiply, and divide rational numbers fluently (Supporting Standard)	7.3A
	Apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers (Readiness Standard)	7.3B
Cluster #1 9-10 days	*Locate, compare, and order integers and rational numbers using a number line (Supporting Standard) (*including percents)	6.2C
	*Order a set of rational numbers arising from mathematical and real-world contexts (Readiness Standard) (*including percents)	6.2D
	Represent ratios and percents with concrete models, fractions, and decimals (Supporting Standard)	6.4E
	Represent benchmark fractions and percents such as 1%, 10%, 25%, 33 1/3%, and multiples of these values using 10 by 10 grids, strip diagrams, number lines, and numbers (Supporting Standard)	6.4F
	Generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money (Readiness Standard)	6.4G
	Use equivalent fractions, decimals, and percents to show equal parts of the same whole (Supporting Standard)	6.5C
Cluster #2 7-9 days	Solve real-world problems to find the whole given a part and the percent, to find the part given the whole and the percent, and to find the percent given the part and the whole, including the use of concrete and pictorial models (Readiness Standard)	6.5B
	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 (Readiness Standard)	6.12D
	Solve problems using data represented in bar graphs, dot plots, and circle graphs, including part-to-whole and part-to-part comparisons and equivalents (Readiness Standard)	7.6G
Cluster #3 10-11 days	Apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates (Readiness Standard)	6.4B
	Give examples of ratios as multiplicative comparisons of two quantities describing the same attribute (Supporting Standard)	6.4C
	Give examples of rates as the comparison by division of two quantities having different attributes, including rates as quotients (Supporting Standard)	6.4D
	Represent ratios and percents with concrete models, fractions, and decimals (Supporting Standard)	6.4E
	Convert units within a measurement system, including the use of proportions and unit rates (Readiness Standard)	6.4H
	Represent mathematical and real-world problems involving ratios and rates using scale factors, tables, graphs, and proportions (Supporting Standard)	6.5A
	Calculate unit rates from rates in mathematical and real-world problems (Supporting Standard)	7.4B
	Solve problems involving ratios, rates, and percents, including multi-step problems involving percent increase and percent decrease, and financial literacy problems (Readiness Standard)	7.4D
Convert between measurement systems, including the use of proportions and the use of unit rates (Supporting Standard)	7.4E	

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Unit 4 – Algebraic Relationships

4th SW
27 days

Unit Summary: This unit focuses on different representations in mathematics including multiple representations of a number relationship, pattern or problem situation. Students begin to develop an understanding of the difference between an expression and an equation. Students use order of operations and properties to generate equivalent expressions and use words, expressions with variable, tables, graphs and concrete models to represent relationships.

On-going	Add, subtract, multiply, and divide rational numbers fluently (Supporting Standard)	7.3A
	Apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers (Readiness Standard)	7.3B
Cluster #1 15-16 days	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 (Supporting Standard)	6.4A
	Identify independent and dependent quantities from tables and graphs (Supporting Standard)	6.6A
	Write an equation that represents the relationship between independent and dependent quantities from a table (Supporting Standard)	6.6B
	Represent a given situation using verbal descriptions, tables, graphs, and equations in the form $y = kx$ or $y = x + b$ (Readiness Standard)	6.6C
	Represent constant rates of change in mathematical and real-world problems given pictorial, tabular, verbal, numeric, graphical, and algebraic representations, including $d = rt$ (Readiness Standard)	7.4A
	Determine the constant of proportionality ($k = y/x$) within mathematical and real-world problems (Supporting Standard)	7.4C
	The student is expected to represent linear relationships using verbal descriptions, tables, graphs, and equations that simplify to the form $y = mx + b$ (Readiness Standard)	7.7
Cluster #2 11-12 days	Generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization (Readiness Standard)	6.7A
	Distinguished between expressions and equations verbally, numerically, and algebraically (Supporting Standard)	6.7B
	Determine if two expressions are equivalent using concrete models, pictorial models, and algebraic representations (Supporting Standard)	6.7C
	Generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties (Readiness Standard)	6.7D

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Unit 5 – Equations and Inequalities		4th/5th SW 19 Days
Unit Summary: This unit focuses on formulating and solving one- and two-step equations and inequalities containing one variable that represent purely mathematical and real-world problems. Students use a variety of models to solve equations/inequalities and record their actions.		
On-going	Add, subtract, multiply, and divide rational numbers fluently (Supporting Standard)	7.3A
	Apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers (Readiness Standard)	7.3B
*Unit 5: 19 Days	Write one-variable, one-step equations and inequalities to represent constraints or conditions within problems (Supporting Standard)	6.9A
	Represent solutions for one-variable, one-step equations and inequalities on number lines (Supporting Standard)	6.9B
	Write corresponding real-world problems given one-variable, one-step equations or inequalities (Supporting Standard)	6.9C
	Model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts (Readiness Standard) <small>**Strikethrough portion is located in 6th Math Unit 7</small>	6.10A
	Determine if the given value(s) make(s) one-variable, one-step equations or inequalities true (Supporting Standard)	6.10B
	Write one-variable, two-step equations and inequalities to represent constraints or conditions within problems (Supporting Standard)	7.10A
	Represent solutions for one-variable, two-step equations and inequalities on number lines (Supporting Standard)	7.10B
	Write a corresponding real-world problem given a one-variable, two-step equation or inequality (Supporting Standard)	7.10C
	Model and solve one-variable, two-step equations and inequalities (Readiness Standard)	7.11A
Determine if the given value(s) make(s) one-variable, two-step equations and inequalities true (Supporting Standard)	7.11B	

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Unit 6 – Personal Financial Literacy		5th SW 9 Days
Unit Summary: This unit focuses on checking accounts, debit and credit cards, and various methods to pay for college. Students compare the features and costs of checking accounts, debit cards, and credit cards including the importance of a positive credit history. Students investigate various methods to pay for college including savings, grants, scholarships, student loans, and work-study.		
On-going	Add, subtract, multiply, and divide rational numbers fluently (Supporting Standard)	7.3A
	Apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers (Readiness Standard)	7.3B
*Unit 6: 9 Days	Compare the features and costs of a checking account and a debit card offered by different local financial institutions (Supporting Standard)	6.14A
	Distinguish between debit cards and credit cards (Supporting Standard)	6.14B
	Balance a check register that includes deposits, withdrawals, and transfers (Supporting Standard)	6.14C
	Explain why it is important to establish a positive credit history (Supporting Standard)	6.14D
	Describe the information in a credit report and how long it is retained (Supporting Standard)	6.14E
	Describe the value of credit reports to borrowers and to lenders (Supporting Standard)	6.14F
	Explain various methods to pay for college, including through savings, grants, scholarships, student loans, and work-study (Supporting Standard)	6.14G
	Compare the annual salary of several occupations requiring various levels of post-secondary education or vocational training and calculate the effects of the different annual salaries on lifetime income (Supporting Standard)	6.14H

*Because of the nature and length of this unit, the TEKS have not been clustered.

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Unit 7 – Geometry

5th/6th SW
25 Days

Unit Summary: Investigate and solve problems involving the area and circumference of circles, area of parallelograms, trapezoids, triangles, and composite figures, volume of rectangular and triangular prisms. Students will extend previous knowledge of triangles to understand special properties and relationships.

On-going	Add, subtract, multiply, and divide rational numbers fluently (Supporting Standard)	7.3A
	Apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers (Readiness Standard)	7.3B
Cluster #1 4-5 days	Extend previous knowledge of triangles and their properties to include the sum of angles of a triangle, the relationship between the lengths of sides and measures of angles in a triangle, and determining when three lengths form a triangle (Supporting Standard)	6.8A
	Write and solve equations using geometry concepts, including the sum of the angles in a triangle, and angle relationships (Supporting Standard)	7.11C
Cluster #2 12-13 days	Model area formulas for parallelograms, trapezoids, and triangles by decomposing and rearranging parts of these shapes (Supporting Standard)	6.8B
	Write equations that represent problems related to the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers (Supporting Standard)	6.8C
	Determine solutions for problems involving the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers (Readiness Standard)	6.8D
	Model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts (Readiness Standard) **Emphasis on “including geometric concepts”	6.10A
	Solve problems involving the volume of rectangular prisms, triangular prisms, rectangular pyramids, and triangular pyramids (Readiness Standard)	7.9A
	Determine the area of composite figures containing combinations of rectangles, squares, parallelograms, trapezoids, triangles, semicircles, and quarter circles (Readiness Standard)	7.9C
Cluster #3 7-8 days	Describe π as the ratio of the circumference of a circle to its diameter (Supporting Standard)	7.5B
	Use models to determine the approximate formulas for the circumference and area of a circle and connect the models to the actual formulas	7.8C
	Determine the circumference and area of circles (Readiness Standard)	7.9B
	Determine the area of composite figures containing combinations of rectangles, squares, parallelograms, trapezoids, triangles, semicircles, and quarter circles (Readiness Standard)	7.9C

*Cluster 3 and all of 7.9C can be taught after STAAR