lead4ward

STAAR Standards Snapshot - Grade 6 Math

(New TEKS – 2014-15)

Mathematical Process Standards						
6.1(A)	**6.1(B)**	**6.1(C)**	**6.1(D)**	**6.1(E)**	**6.1(F)**	**6.1(G)**
apply mathematics to problems arising in everyday life, society, and the workplace	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	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	communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate	create and use representations to organize, record, and communicate mathematical ideas	analyze mathematical relationships to connect and communicate mathematical ideas	display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication

Rptg Cat	STAAR	Readiness Standards		Supporting Standards	
1 Numerical Representations and Relationships	14	6.2(D)	order a set of rational numbers arising from mathematical and real-world contexts	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
		6.4(G)	generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money	6.2(B)	identify a number, its opposite, and its absolute value
		6.7(A)	generate equivalent numerical expressions using order of operations, including whole number exponents, and prime factorization	6.2(C)	locate, compare, and order integers and rational numbers using a number line
		6.7(D)	generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties	6.2(E)	extend representations for division to include fraction notation such as a/b represents the same number as $a \div b$ where $b \neq 0$
				6.4(C)	give examples of ratios as multiplicative comparisons of two quantities describing the same attribute
				6.4(D)	give examples of rates as the comparison by division of two quantities having different attributes, including rates as quotients
				6.4(E)	represent ratios and percents with concrete models, fractions, and decimals
				6.4(F)	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
				6.5(C)	use equivalent fractions, decimals, and percents to show equal parts of the same whole
				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
2 Computations and Algebraic Relationships	20	6.3(D)	add, subtract, multiply, and divide integers fluently	6.3(A)	recognize that dividing by a rational number and multiplying by its reciprocal result in equivalent values
		6.3(E)	multiply and divide positive rational numbers fluently	6.3(B)	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
		6.4(B)	apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates	6.3(C)	represent integer operations with concrete models and connect the actions with the models to standardized algorithms
		6.5(B)	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	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
				6.5(A)	represent mathematical and real-world problems involving ratios and rates using scale factors, tables, graphs, and proportions
		6.6(C)	represent a given situation using verbal descriptions, tables, graphs, and equations in the form $y = kx$ or $y = x + b$	6.6(A)	identify independent and dependent quantities from tables and graphs
				6.6(B)	write an equation that represents the relationship between independent and dependent quantities from a table
		6.10(A)	model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts	6.9(A)	write one-variable, one-step equations and inequalities to represent constraints or conditions within problems
				6.9(B)	represent solutions for one-variable, one-step equations and inequalities on number lines
				6.9(C)	write corresponding real-world problems given one-variable, one-step equations or inequalities
				6.10(B)	determine if the given value(s) make(s) one-variable, one-step equations or inequalities true
3 Geometry and Measurement	8	6.4(H)	convert units within a measurement system, including the use of proportions and unit rates	6.8(A)	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
		6.8(D)	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	6.8(B)	model area formulas for parallelograms, trapezoids, and triangles by decomposing and rearranging parts of these shapes
				6.8(C)	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
		6.11(A)	graph points in all four quadrants using ordered pairs of rational numbers		
4 Data Analysis and Personal Financial Literacy	10	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	6.12(A)	represent numeric data graphically, including dot plots, stem-and-leaf plots, histograms, and box plots
				6.12(B)	use the graphical representation of numeric data to describe the center, spread, and shape of the data distribution
				6.13(B)	distinguish between situations that yield data with and without variability
				6.14(A)	compare the features and costs of a checking account and a debit card offered by different local financial institutions
		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	6.14(B)	distinguish between debit cards and credit cards
				6.14(C)	balance a check register that includes deposits, withdrawals, and transfers
				6.14(E)	describe the information in a credit report and how long it is retained
				6.14(F)	describe the value of credit reports to borrowers and to lenders
				6.14(G)	explain various methods to pay for college, including through savings, grants, scholarships, student loans, and work-study
		6.13(A)	interpret numeric data summarized in dot plots, stem-and-leaf plots, histograms, and box plots	6.14(H)	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
# Items	**52** (4 Griddable)	**31-34 questions from Readiness Standards**		**18-21 questions from Supporting Standards**	

Source: Texas Education Agency STAAR Resources

REV 02/03/2014