Lesson Correlation to the Grade 4 Texas Essential Knowledge and Skills

This worktext is customized to the *Texas Essential Knowledge and Skills* and will help you prepare for the *State of Texas Assessments of Academic Readiness (STAAR®)* in Mathematics for Grade 4.

Mathematical process standards are not listed under separate lessons. Because application of mathematical process standards is part of each knowledge statement, these standards are incorporated into instruction and practice throughout the lessons.

Texas Essential Knowledge and Skills		*Measuring Up* Lessons
TEKS 4.2 Number and operations. The student applies mathematical process standards to represent, compare, and order whole numbers and decimals and understand relationships related to place value.		
(A)	interpret the value of each place-value position as 10 times the position to the right and as one-tenth of the value of the place to its left	1, 4
(B)	represent the value of the digit in whole numbers through 1,000,000,000 and decimals to the hundredths using expanded notation and numerals	1, 4
(C)	compare and order whole numbers to 1,000,000,000 and represent comparisons using the symbols >, <, or =	2
(D)	round whole numbers to a given place value through the hundred thousands place	3
(E)	represent decimals, including tenths and hundredths, using concrete and visual models and money	5
(F)	compare and order decimals using concrete and visual models to the hundredths	7
(G)	relate decimals to fractions that name tenths and hundredths	8
(H)	determine the corresponding decimal to the tenths or hundredths place of a specified point on a number line	6
TEKS 4.3 Number and operations. The student applies mathematical process standards to represent and generate fractions to solve problems.		
(A)	represent a fraction $\frac{a}{b}$ as a sum of fractions $\frac{1}{b}$, where a and b are whole numbers and $b > 0$, including when $a > b$	9
(B)	decompose a fraction in more than one way into a sum of fractions with the same denominator using concrete and pictorial models and recording results with symbolic representations	9
(C)	determine if two given fractions are equivalent using a variety of methods	11
(D)	compare two fractions with different numerators and different denominators and represent the comparison using the symbols >, =, or <	12
(E)	represent and solve addition and subtraction of fractions with equal denominators using objects and pictorial models that build to the number line and properties of operations	13, 14
(F)	evaluate the reasonableness of sums and differences of fractions using benchmark fractions $0, \frac{1}{4}, \frac{1}{2}, \frac{3}{4},$ and 1, referring to the same whole	13, 14
(G)	represent fractions and decimals to the tenths or hundredths as distances from zero on a number line	6, 10
TEKS 4.4 Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy.		
(A)	add and subtract whole numbers and decimals to the hundredths place using the standard algorithm	15, 16
(B)	determine products of a number and 10 or 100 using properties of operations and place value understandings	18
(C)	represent the product of 2 two-digit numbers using arrays, area models, or equations, including perfect squares through 15 by 15	19
(D)	use strategies and algorithms, including the standard algorithm, to multiply up to a four-digit number by a one-digit number and to multiply a two-digit number by a two-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties	21
(E)	represent the quotient of up to a four-digit whole number divided by a one-digit whole number using arrays, area models, or equations	22
(F)	use strategies and algorithms, including the standard algorithm, to divide up to a four-digit dividend by a one-digit divisor	24

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(G)	round to the nearest 10, 100, or 1,000 or use compatible numbers to estimate solutions involving whole numbers	17, 20, 23
(H)	solve with fluency one- and two-step problems involving multiplication and division, including interpreting remainders	21, 24, 25
TEKS 4.5 Algebraic reasoning. The student applies mathematical process standards to develop concepts of expressions and equations.		
(A)	represent multi-step problems involving the four operations with whole numbers using strip diagrams and equations with a letter standing for the unknown quantity	26
(B)	represent problems using an input-output table and numerical expressions to generate a number pattern that follows a given rule representing the relationship of the values in the resulting sequence and their position in the sequence	27, 28
(C)	use models to determine the formulas for the perimeter of a rectangle ($l + w + l + w$ or $2l + 2w$), including the special form for perimeter of a square ($4s$) and the area of a rectangle ($l \times w$)	29, 30
(D)	solve problems related to perimeter and area of rectangles where dimensions are whole numbers	29, 30
TEKS 4.6 Geometry and measurement. The student applies mathematical process standards to analyze geometric attributes in order to develop generalizations about their properties.		
(A)	identify points, lines, line segments, rays, angles, and perpendicular and parallel lines	31
(B)	identify and draw one or more lines of symmetry, if they exist, for a two-dimensional figure	36
(C)	apply knowledge of right angles to identify acute, right, and obtuse triangles	33
(D)	classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specified size	37
TEKS 4.7 Geometry and measurement. The student applies mathematical process standards to solve problems involving angles less than or equal to 180 degrees.		
(A)	illustrate the measure of an angle as the part of a circle whose center is at the vertex of the angle that is "cut out" by the rays of the angle. Angle measures are limited to whole numbers	32
(B)	illustrate degrees as the units used to measure an angle, where 1/360 of any circle is one degree and an angle that "cuts" n/360 out of any circle whose center is at the angle's vertex has a measure of n degrees. Angle measures are limited to whole numbers	32
(C)	determine the approximate measures of angles in degrees to the nearest whole number using a protractor	32
(D)	draw an angle with a given measure	34
(E)	determine the measure of an unknown angle formed by two non-overlapping adjacent angles given one or both angle measures	35
TEKS 4.8 Geometry and measurement. The student applies mathematical process standards to select appropriate customary and metric units, strategies, and tools to solve problems involving measurement.		
(A)	identify relative sizes of measurement units within the customary and metric systems	38, 39
(B)	convert measurements within the same measurement system, customary or metric, from a smaller unit into a larger unit or a larger unit into a smaller unit when given other equivalent measures represented in a table	38, 39
(C)	solve problems that deal with measurements of length, intervals of time, liquid volumes, mass, and money using addition, subtraction, multiplication, or division as appropriate	40, 41, 42, 43
TEKS 4.9 Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data.		
(A)	represent data on a frequency table, dot plot, or stem-and-leaf plot marked with whole numbers and fractions	44, 45
(B)	solve one- and two-step problems using data in whole number, decimal, and fraction form in a frequency table, dot plot, or stem-and-leaf plot	46
TEKS 4.10 Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security.		
(A)	distinguish between fixed and variable expenses	47
(B)	calculate profit in a given situation	48

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(C) compare the advantages and disadvantages of various savings options	49
(D) describe how to allocate a weekly allowance among spending; saving, including for college; and sharing	49
(E) describe the basic purpose of financial institutions, including keeping money safe, borrowing money, and lending	50

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