



Lesson Correlation to the Grade 7 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 7.

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 7.2 Number and operations. The student applies mathematical process standards to represent and use rational numbers in a variety of forms.	
(A) extend previous knowledge of sets and subsets using a visual representation to describe relationships between sets of rational numbers	1
TEKS 7.3 Number and operations. The student applies mathematical process standards to add, subtract, multiply, and divide while solving problems and justifying solutions.	
(A) add, subtract, multiply, and divide rational numbers fluently	2, 3, 4
(B) apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers	2, 3, 4
TEKS 7.4 Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships.	
(A) represent constant rates of change in mathematical and real-world problems given pictorial, tabular, verbal, numeric, graphical, and algebraic representations, including $d = rt$	5, 6, 7, 8
(B) calculate unit rates from rates in mathematical and real-world problems	5, 6, 7, 8
(C) determine the constant of proportionality ($k = \frac{y}{x}$) within mathematical and real-world problems	5, 6, 7, 8
(D) solve problems involving ratios, rates, and percents, including multi-step problems involving percent increase and percent decrease, and financial literacy problems	9, 10
(E) convert between measurement systems, including the use of proportions and the use of unit rates	11
TEKS 7.5 Proportionality. The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships.	
(A) generalize the critical attributes of similarity, including ratios within and between similar shapes	12, 13
(B) describe π as the ratio of the circumference of a circle to its diameter	7, 8
(C) solve mathematical and real-world problems involving similar shape and scale drawings	12, 13, 14
TEKS 7.6 Proportionality. The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships.	
(A) represent sample spaces for simple and compound events using lists and tree diagrams	15, 16
(C) make predictions and determine solutions using experimental data for simple and compound events	22
(D) make predictions and determine solutions using theoretical probability for simple and compound events	21
(E) find the probabilities of a simple event and its complement and describe the relationship between the two	12, 17
(G) solve problems using data represented in bar graphs, dot plots, and circle graphs, including part-to-whole and part-to-part comparisons and equivalents	23
(H) solve problems using qualitative and quantitative predictions and comparisons from simple experiments	16
(I) determine experimental and theoretical probabilities related to simple and compound events using data and sample spaces	17, 18, 19, 20
TEKS 7.7 Expressions, equations, and relationships. The student applies mathematical process standards to represent linear relationships using multiple representations.	
(A) represent linear relationships using verbal descriptions, tables, graphs, and equations that simplify to the form $y = mx + b$	27, 28, 29
TEKS 7.9 Expressions, equations, and relationships. The student applies mathematical process standards to solve geometric problems.	
(A) solve problems involving the volume of rectangular prisms, triangular prisms, rectangular pyramids, and triangular pyramids	35, 36

Texas Essential Knowledge and Skills	Measuring Up® Lessons
(B) determine the circumference and area of circles	37
(C) determine the area of composite figures containing combinations of rectangles, squares, parallelograms, trapezoids, triangles, semicircles, and quarter circles	37, 38
(D) solve problems involving the lateral and total surface area of a rectangular prism, rectangular pyramid, triangular prism, and triangular pyramid by determining the area of the shape's net	39, 40
TEKS 7.10 Expressions, equations, and relationships. The student applies mathematical process standards to use one-variable equations and inequalities to represent situations.	
(A) write one-variable, two-step equations and inequalities to represent constraints or conditions within problems	32
(B) represent solutions for one-variable, two-step equations and inequalities on number lines	30, 31
(C) write a corresponding real-world problem given a one-variable, two-step equation or inequality	32
TEKS 7.11 Expressions, equations, and relationships. The student applies mathematical process standards to solve one-variable equations and inequalities.	
(A) model and solve one-variable, two-step equations and inequalities	30, 31, 32
(B) determine if the given value(s) make(s) one-variable, two-step equations and inequalities true	33, 34
(C) write and solve equations using geometry concepts, including the sum of the angles in a triangle, and angle relationships	33, 34
TEKS 7.12 Measurement and data. The student applies mathematical process standards to use statistical representations to analyze data.	
(A) compare two groups of numeric data using comparative dot plots or box plots by comparing their shapes, centers, and spreads	24, 25, 26
(B) use data from a random sample to make inferences about a population	25, 26
(C) compare two populations based on data in random samples from these populations, including informal comparative inferences about differences between the two populations	25, 26
TEKS 7.13 Personal financial literacy. The student applies mathematical process standards to develop an economic way of thinking and problem solving useful in one's life as a knowledgeable consumer and investor.	
(A) calculate the sales tax for a given purchase and calculate income tax for earned wages	41
(B) identify the components of a personal budget, including income; planned savings for college, retirement, and emergencies; taxes; and fixed and variable expenses, and calculate what percentage each category comprises of the total budget	42
(C) create and organize a financial assets and liabilities record and construct a net worth statement	43
(D) use a family budget estimator to determine the minimum household budget and average hourly wage needed for a family to meet its basic needs in the student's city or another large city nearby	42
(E) calculate and compare simple interest and compound interest earnings	45
(F) analyze and compare monetary incentives, including sales, rebates, and coupons	44