A Correlation of

enVisionmath 2.0
SCOTT FORESMAN • ADDISON WESLEY

Oklahoma

©2019

To the

Oklahoma Academic Standards for Mathematics
Grade 7

P Pearson

Oklahoma Academic Standards for Mathematics Grade 7	enVisionmath2.0 Oklahoma Grade 7, ©2019
Math Actions and Processes	
Develop a Deep and Flexible Conceptual Understanding. Demonstrate a deep and flexible conceptual understanding of mathematical concepts, operations, and relations while making mathematical and real-world connections. Students will develop an understanding of how and when to apply and use the mathematics they know to solve problems.	**SE/TE:** 10-12, 16-18, 66-68, 88-90, 94-96, 100-102, 106-108, 124-126, 140-142, 146-148, 152-154, 170-172, 198-200, 240-242, 256-258, 315-318, 323-326, 332-334, 358-360, 364-366, 462-464
Develop Accurate and Appropriate Procedural Fluency. Learn efficient procedures and algorithms for computations and repeated processes based on a strong sense of numbers. Develop fluency in addition, subtraction, multiplication, and division of numbers and expressions. Students will generate a sophisticated understanding of the development and application of algorithms and procedures.	**SE/TE:** 22-24, 28-30, 34-36, 42-44, 48-50, 54-56, 60-62, 66-68, 94-96, 124-126, 140-142, 160-162, 170-172, 176-178, 192-194, 204-206, 210-212, 216-218, 228-230, 234-236, 240-242, 256-258, 262-264, 268-270, 276-278, 282-284, 292-294, 298-300, 370-372, 376-378, 388-390, 394-396, 418-420, 438-440, 444-446, 452-454, 468-470, 474-476
Develop Strategies for Problem Solving. Analyze the parts of complex mathematical tasks and identify entry points to begin the search for a solution. Students will select from a variety of problem solving strategies and use corresponding multiple representations (verbal, physical, symbolic, pictorial, graphical, tabular) when appropriate. They will pursue solutions to various tasks from real-world situations and applications that are often interdisciplinary in nature. They will find methods to verify their answers in context and will always question the reasonableness of solutions.	**SE/TE:** 22-24, 28-30, 34-36, 42-44, 48-50, 54-56, 60-62, 66-68, 94-96, 124-126, 140-142, 160-162, 170-172, 176-178, 192-194, 204-206, 210-212, 216-218, 228-230, 234-236, 240-242, 256-258, 262-264, 268-270, 276-278, 282-284, 292-294, 298-300, 370-372, 376-378, 388-390, 394-396, 418-420, 438-440, 444-446, 452-454, 468-470, 474-476
Develop Mathematical Reasoning. Explore and communicate a variety of reasoning strategies to think through problems. Students will apply their logic to critique the thinking and strategies of others to develop and evaluate mathematical arguments, including making arguments and counterarguments and making connections to other contexts.	**SE/TE:** 10-12, 16-18, 66-68, 88-90, 94-96, 100-102, 106-108, 118-120, 124-126, 140-142, 146-148, 152-154, 160-162, 170-172, 176-178, 192-194, 198-200, 204-206, 210-212, 216-218, 228-230, 256-258, 262-264, 268-270, 276-278, 282-284, 298-300, 332-334, 338-340, 358-360, 364-366, 376-378, 388-390, 394-396, 418-420, 431-434, 438-440, 444-446, 452-454, 468-470, 474-476

Oklahoma Academic Standards for Mathematics Grade 7	enVisionmath2.0 Oklahoma Grade 7, ©2019
Develop a Productive Mathematical Disposition. Hold the belief that mathematics is sensible, useful and worthwhile. Students will develop the habit of looking for and making use of patterns and mathematical structures. They will persevere and become resilient, effective problem solvers.	**SE/TE:** 10-12, 16-18, 34-36, 48-50, 60-62, 66-68, 88-90, 100-102, 106-108, 118-120, 124-126, 140-142, 146-148, 152-154, 192-194, 198-200, 204-206, 210-212, 216-218, 268-270, 276-278, 282-284, 332-334, 338-340, 364-366, 370-372, 424-426, 431-434, 438-440, 444-446, 452-454, 462-464
Develop the Ability to Make Conjectures, Model, and Generalize. Make predictions and conjectures and draw conclusions throughout the problem solving process based on patterns and the repeated structures in mathematics. Students will create, identify, and extend patterns as a strategy for solving and making sense of problems.	**SE/TE:** 10-12, 16-18, 88-90, 94-96, 100-102, 106-108, 118-120, 124-126, 140-142, 146-148, 152-154, 192-194, 198-200, 204-206, 210-212, 216-218, 268-270, 276-278, 282-284, 315-318, 323-326, 332-334, 338-340, 358-360, 364-366, 370-372, 376-378, 388-390, 394-396
Develop the Ability to Communicate Mathematically. Students will discuss, write, read, interpret and translate ideas and concepts mathematically. As they progress, students' ability to communicate mathematically will include their increased use of mathematical language and terms and analysis of mathematical definitions.	**SE/TE:** 10-12, 16-18, 66-68, 88-90, 94-96, 100-102, 106-108, 124-126, 140-142, 146-148, 152-154, 192-194, 198-200, 256-258, 332-334, 338-340, 358-360, 364-366, 370-372, 424-426, 431-434, 462-464
Number & Operations (N)	
7.N.1 Read, write, represent, and compare rational numbers, expressed as integers, fractions, and decimals.	
7.N.1.1 Know that every rational number can be written as the ratio of two integers or as a terminating or repeating decimal.	**SE:** 13-18, 31-36, 45-50, 57-62, 63-68 **TE:** 13A-18B, 31A-36B, 45A-50B, 57A-62B, 63A-68B
7.N.1.2 Compare and order rational numbers expressed in various forms using the symbols <, >, and =.	**SE:** 13-18, OK1 **TE:** 13A-18B, OK1
7.N.1.3 Recognize and generate equivalent representations of rational numbers, including equivalent fractions.	**SE:** 13-18 **TE:** 13A-18B

SE = Student Edition   TE = Teacher's Edition

OK pages are located in the Oklahoma Student Companion and the Oklahoma Online Teacher's Guide.

Oklahoma Academic Standards for Mathematics Grade 7	enVisionmath2.0 Oklahoma Grade 7, ©2019
7.N.2 Calculate with integers and rational numbers, with and without positive integer exponents, to solve real world and mathematical problems; explain the relationship between absolute value of a rational number and the distance of that number from zero.	
7.N.2.1 Estimate solutions to multiplication and division of integers in order to assess the reasonableness of results.	**SE:** 39-44, 51-56 **TE:** 39A-44B, 51A-56B
7.N.2.2 Illustrate multiplication and division of integers using a variety of representations.	**SE:** 39-44, 51-56 **TE:** 39A-44B, 51A-56B
7.N.2.3 Solve real-world and mathematical problems involving addition, subtraction, multiplication and division of rational numbers; use efficient and generalizable procedures including but not limited to standard algorithms.	**SE:** 31-36, 45-50, 57-62, 63-68 **TE:** 31A-36B, 45A-50B, 57A-62B, 63A-68B
7.N.2.4 Raise integers to positive integer exponents.	**SE:** OK2 **TE:** OK2
7.N.2.5 Solve real-world and mathematical problems involving calculations with rational numbers and positive integer exponents.	**SE:** OK2 **TE:** OK2
7.N.2.6 Explain the relationship between the absolute value of a rational number and the distance of that number from zero on a number line. Use the symbol for absolute value.	**SE:** 7-12, 31-36 **TE:** 12A-12B, 31A–36B
Algebraic Reasoning & Algebra (A)	
7.A.1 Understand the concept of proportionality in real-world and mathematical situations, and distinguish between proportional and other relationships.	
7.A.1.1 Describe that the relationship between two variables, x and y, is proportional if it can be expressed in the form y/x=k or y = kx; distinguish proportional relationships from other relationships, including inversely proportional relationships (xy = k or y = k/x).	**SE:** 97-102, 103-108, 115-120, 121-126, OK3 **TE:** 97A-102B, 103A-108B, 115A-120B, 121A-126B, OK3

SE = Student Edition   TE = Teacher's Edition

OK pages are located in the Oklahoma Student Companion and the Oklahoma Online Teacher's Guide.

Oklahoma Academic Standards for Mathematics Grade 7	enVisionmath2.0 Oklahoma Grade 7, ©2019
7.A.1.2 Recognize that the graph of a proportional relationship is a line through the origin and the coordinate (1, *r*), where both *r* and the slope are the unit rate (constant of proportionality, *k*).	**SE:** 115-120, 121-126 **TE:** 120A-120B, 126A-126B
7.A.2 Recognize proportional relationships in real-world and mathematical situations; represent these and other relationships with tables, verbal descriptions, symbols, and graphs; solve problems involving proportional relationships and interpret results in the original context.	
7.A.2.1 Represent proportional relationships with tables, verbal descriptions, symbols, and graphs; translate from one representation to another. Determine and compare the unit rate (constant of proportionality, slope, or rate of change) given any of these representations.	**SE:** 91-96, 97-102, 103-108, 115-120, 121-126 **TE:** 91A-96B, 97A-102B, 103A-108B, 115A-120B, 121A-126B
7.A.2.2 Solve multi-step problems involving proportional relationships involving distance-time, percent increase or decrease, discounts, tips, unit pricing, similar figures, and other real-world and mathematical situations.	**SE:** 121-126, 143-148, 149-154, 157-162, 167-172, 173-178 **TE:** 121A-126B, 143A-148B, 149A-154B, 157A-162B, 167A-172B, 173A-178B
7.A.2.3 Use proportional reasoning to solve real-world and mathematical problems involving ratios.	**SE:** 85-90, 91-96, 97-102, 103-108, 115-120, 121-126, 137-142, 143-148, 149-154, 157-162, 167-172, 173-178 **TE:** 85A-90B, 91A-96B, 97A-102B, 103A-108B, 115A-120B, 121A-126B, 137A-142B, 143A-148B, 149A-154B, 157A-162B, 167A-172B, 173A-178B
7.A.2.4 Use proportional reasoning to assess the reasonableness of solutions.	**SE:** 97-102, 103-108, 115-120, 121-126, 137-142, 143-148, 149-154, 157-162, 167-172, 173-178 **TE:** 97A-102B, 103A-108B, 115A-120B, 121A-126B, 137A-142B, 143A-148B, 149A-154B, 157A-162B, 167A-172B, 173A-178B
7.A.3 Represent and solve linear equations and inequalities.	
7.A.3.1 Write and solve problems leading to linear equations with one variable in the form *px* + *q* = *r* and *p(x + q) = r*, where *p, q, r* are rational numbers.	**SE:** 253-258, 259-264, 265-270 **TE:** 253A-258B, 259A-264B, 265A-270B

SE = Student Edition   TE = Teacher's Edition

OK pages are located in the Oklahoma Student Companion and the Oklahoma Online Teacher's Guide.

A Correlation of enVisionmath2.0 Oklahoma, ©2019
to the Oklahoma Academic Standards for Mathematics

Oklahoma Academic Standards for Mathematics Grade 7	enVisionmath2.0 Oklahoma Grade 7, ©2019
7.A.3.2 Represent, write, solve, and graph problems leading to linear inequalities with one variable in the form x + p > q and x + p < q, where p, and q are nonnegative rational numbers.	**SE:** 273-278, 279-284 **TE:** 273A-278B, 279A-284B
7.A.3.3 Represent real-world or mathematical situations using equations and inequalities involving variables and rational numbers.	**SE:** 253-258, 259-264, 265-270, 273-278, 279-284, 289-294, 295-300 **TE:** 258A-258B, 264A-264B, 270A-270B, 278A-278B, 284A-284B, 294A-294B, 300A-300B
7.A.4 Use order of operations and properties of operations to generate equivalent numerical and algebraic expressions containing rational numbers and grouping symbols; evaluate such expressions.	
7.A.4.1 Use properties of operations (limited to associative, commutative, and distributive) to generate equivalent numerical and algebraic expressions containing rational numbers, grouping symbols and whole number exponents.	**SE:** 189-194, 195-200, 201-206, 207-212, 213-218, 225-230, 231-236, 237-242 **TE:** 189A-194B, 195A-200B, 201A-206B, 207A-212B, 213A-218B, 225A-230B, 231A-236B, 237A-242B
7.A.4.2 Apply understanding of order of operations and grouping symbols when using calculators and other technologies.	**SE:** 195-200, 201-206, 207-212, 213-218, 225-230, 231-236, 237-242 **TE:** 195A-200B, 201A-206B, 207A-212B, 213A-218B, 225A-230B, 231A-236B, 237A-242B
Geometry & Measurement (GM)	
7.GM.1 Develop and understand the concept of surface area and volume of rectangular prisms.	
7.GM.1.1 Using a variety of tools and strategies, develop the concept that surface area of a rectangular prism with rational-valued edge lengths can be found by wrapping the figure with same-sized square units without gaps or overlap. Use appropriate measurements such as cm^2.	**SE:** OK13 **TE:** OK13
7.GM.1.2 Using a variety of tools and strategies, develop the concept that the volume of rectangular prisms with rational-valued edge lengths can be found by counting the total number of same-sized unit cubes that fill a shape without gaps or overlaps. Use appropriate measurements such as cm^3.	**SE:** OK14 **TE:** OK14

5

SE = Student Edition   TE = Teacher's Edition

OK pages are located in the Oklahoma Student Companion and the Oklahoma Online Teacher's Guide.

Oklahoma Academic Standards for Mathematics Grade 7	enVisionmath2.0 Oklahoma Grade 7, ©2019
7.GM.2 Determine the area of trapezoids and area and perimeter of composite figures.	
7.GM.2.1 Develop and use the formula to determine the area of a trapezoid to solve problems.	**SE:** OK10 **TE:** OK10
7.GM.2.2 Find the area and perimeter of composite figures to solve real-world and mathematical problems.	**SE:** OK11 **TE:** OK11 For additional supporting content, please see: **SE:** 441-446, 449-454 **TE:** 441A-446B, 449A-454B
7.GM.3 Use reasoning with proportions and ratios to determine measurements, justify formulas, and solve real-world and mathematical problems involving circles and related geometric figures.	
7.GM.3.1 Demonstrate an understanding of the proportional relationship between the diameter and circumference of a circle and that the unit rate (constant of proportionality) is π and can be approximated by rational numbers such as 22/7 and 3.14.	**SE:** 441-446 **TE:** 441A-446B
7.GM.3.2 Calculate the circumference and area of circles to solve problems in various contexts, in terms of ! and using approximations for π.	**SE:** 441-446, 449-454 **TE:** 441A-446B, 449A-454B
7.GM.4 Analyze the effect of dilations, translations, and reflections on the attributes of two-dimensional figures on and off the coordinate plane.	
7.GM.4.1 Describe the properties of similarity, compare geometric figures for similarity, and determine scale factors resulting from dilations.	**SE:** 415-420, OK8, OK9 **TE:** 415A-420B, OK8, OK9
7.GM.4.2 Apply proportions, ratios, and scale factors to solve problems involving scale drawings and determine side lengths and areas of similar triangles and rectangles.	**SE:** 415-420, OK9 **TE:** 415A-420B, OK9

SE = Student Edition   TE = Teacher's Edition

OK pages are located in the Oklahoma Student Companion and the Oklahoma Online Teacher's Guide.

Oklahoma Academic Standards for Mathematics Grade 7	enVisionmath2.0 Oklahoma Grade 7, ©2019
7.GM.4.3 Graph and describe translations and reflections of figures on a coordinate plane and determine the coordinates of the vertices of the figure after the transformation.	**SE:** OK12 **TE:** OK12
Data & Probability (D)	
7.D.1 Display and analyze data in a variety of ways.	
7.D.1.1 Design simple experiments, collect data and calculate measures of central tendency (mean, median, and mode) and spread (range). Use these quantities to draw conclusions about the data collected and make predictions.	**SE:** 311-318, 319-326, 329-334, 335-340, 361-366, 397-402, OK4 **TE:** 311A-318B, 319A-326B, 329A-334B, 335A-340B, 361A-366B, 397A-402B, OK4
7.D.1.2 Use reasoning with proportions to display and interpret data in circle graphs (pie charts) and histograms. Choose the appropriate data display and know how to create the display using a spreadsheet or other graphing technology.	**SE:** OK5, OK6 **TE:** OK5, OK6
7.D.2 Calculate probabilities and reason about probabilities using proportions to solve real-world and mathematical problems.	
7.D.2.1 Determine the theoretical probability of an event using the ratio between the size of the event and the size of the sample space; represent probabilities as percents, fractions and decimals between 0 and 1.	**SE:** 355-360, 361-366, 367-372, 373-378, 391-396, 397-402 **TE:** 355A-360B, 361A-366B, 367A-372B, 373A-378B, 391A-396B, 397A-402B
7.D.2.2 Calculate probability as a fraction of sample space or as a fraction of area. Express probabilities as percents, decimals and fractions.	**SE:** 355-360, 367-372, 373-378, 385-390, 391-396, OK7 **TE:** 355A-360B, 367A-372B, 373A-378B, 385A-390B, 391A-396B, OK7
7.D.2.3 Use proportional reasoning to draw conclusions about and predict relative frequencies of outcomes based on probabilities.	**SE:** 367-372, 373-378 **TE:** 367A-372B, 373A-378B