

GLENCOE CORRELATION
IMPACT MATHEMATICS
ALGEBRA AND MORE FOR THE MIDDLE GRADES
COURSE 2
OKLAHOMA
Priority Academic Student Skills
Mathematics Content Standards
Grade 7

CONTENT STANDARDS	PAGE REFERENCES
Standard 1: Algebraic Reasoning - The student will use number properties to simplify and solve simple linear equations.	
1. Identify and apply the commutative, associative, distributive, inverse and identity properties (e.g., $n + 0 = n$, $2(x + 3) = 2x + 6$).	SE: 52-53, 59-63, 69 #16-#19, 75 #10-#15, #25-#27 TG: T32, T59, T61, T232
2. Use a variety of methods to model and solve one-step linear equations (e.g., use properties of equality, graph ordered pairs with paper and pencil, use graphing calculators).	SE: 303-304, 307, 348-350, 356, 359 #16, 384-387, 413-414 <i>Lab Investigation</i> 312-313, 388-391
3. Identify situations that model linear graphs (e.g., distance traveled at a constant rate).	SE: 304, 307, 316, 322-325, 327, 333, 334-337 <i>Lab Investigation</i> 388-391 TG: T310, T333
Standard 2: Number Sense - The student will use numbers and number relationships to acquire basic facts and determine the reasonableness of results.	
1. Integers	
a. Compare and order positive and negative integers and describe their use in real-life situations (e.g., temperature, sea level, stock market fluctuations, football yardage).	SE: 216-217, 239 #46, 244 #1-#2, 249 #2
b. Use the basic operations on integers to solve problems.	SE: 218-219, 222-227, 231-233, 236-237, 242-244, 245-247, 248-249, 250 TG: T228
2. Ratio, Proportion and Percents	
a. Demonstrate the concept of ratio and proportion with models (e.g., similar geometric shapes, scale models).	SE: 450-453, 456-460, 466, 482-484, 493-494, 559 #21 TG: T451, T483
b. Set up equivalent ratios, estimate and solve problems using ratio, proportions, and percents including percents greater than 100 and less than 1 (e.g., determine missing sides of similar figures, heart rate per minute, cost per pound, pay to hours worked overtime).	SE: 520-524, 525-528, 529-531, 535, 536 #25, 540-542, 545-548, 562-565, 566-568, 575, 599 #8-#9
c. Solve percent application problems (e.g., discounts, tax, finding the missing value of percent/part/whole).	SE: 51 #23-#25, 73 #62-#64, 107 #33-#38, 562-565, 568, 569-571, 572-574, 576-579, 582 #37 TG: T572

CONTENT STANDARDS	PAGE REFERENCES
3. Exponents	
a. Analyze and develop generalizations of exponential patterns, including zero as an exponent, using manipulatives and calculators.	SE: 156-159, 163 #59, 170, 176-178, 179-182, 189 #24, 196-199, 200-202, 208 #33, 211 #61, 286-288, 374 #13 TG: T156
b. Build and recognize models of multiples to investigate squares and square roots (e.g., build rectangular arrays for numbers 1 to 100 and note which can be represented as squares).	SE: 51 #29, 73 #55, 78, 79-83, 108 #56, 175 #81-#83, 374 #15, 469 #25-#27
c. Estimate the square root of a number.	SE: 268, 271 (These examples could be used for examples of estimating square root of formula $a^2 + b^2 = c^2$.), 625 #7 TG: T271, T625
Standard 3: Geometry - The student will apply the properties and relationships of plane geometry in a variety of contexts.	
1. Classifying Geometric Figures	
a. Classify triangles according to their sides and angles.	SE: 473-474, 475, 478 #2, #4, #7, 479 #18 <i>Remember</i> 142, 187, 387 <i>Lab Investigation</i> 476-477
b. Classify quadrilaterals according to their sides and angles (e.g., determine whether all squares are rectangles).	SE: 450, 458, 461-463, 472-474, 478 #1, #3 TG: T472
2. Identify and compare bisectors, interior, exterior, and vertical angles (e.g., using graph paper, software, protractors to measure angles between parallel lines with a transversal).	SE: 292 #83
3. Rectangular Coordinate System	
a. Locate points on a plane in all four quadrants.	SE: 254-258, 259-261, 262-263, 294 #11, #16 TG: T255
b. Identify geometric transformation of figures (rotations, translations, and reflections).	SE: 121 #9-#11, 358 #12-#13, 359 #15, 557 #13-#16 TG: T91, T93, T473, T491
Standard 4: Measurement - The student will use measurement to solve problems in a variety of contexts.	
1. Area and Perimeter	
a. Develop area and perimeter concepts (e.g., use grids to estimate the area of irregular shapes).	SE: 31 #66, 490-491, 494 #9, 495 #15, 515 #6
b. Apply formulas to solve problems involving perimeter (circumference) and area of polygons and circles.	SE: 29 #45, 50 #17, 73 #71-#73, 74 #3, 127 #29, 320 #17, 433 #67-#68, 489
2. Customary and Metric Measurements	
a. Select and use appropriate tools for measurements in practical applications and make reasonable estimates of measurements in a particular situation using the appropriate unit.	SE: 107 #32, 134, 206 #3, 231, 268, 292 #83, 471-472, 474, 475, 497-498, 505 <i>Lab Investigation</i> 476, 551

CONTENT STANDARDS	PAGE REFERENCES
b. Use estimates to relate customary and metric measurements to each other.	SE: 48 #11, 264 #3, 314 #2, 317 #7, 322, 539 #48
Standard 5: Data Analysis and Probability - The student will use probability to formulate and justify predictions from a set of data.	
1. Use data from a sample to predict possible outcomes and compute simple probabilities as fractions, decimals or percents (e.g., use data from lists, tree diagrams, frequency distribution tables, area models).	SE: 31 #67, 188 #22, 238 #40, 267 #20, 408 #30, 579 #28, 593 #9, 666-668, 673 #4, 674 #7, 692-699
2. Determine the probability of an event involving “or”, “and”, or “not” (e.g., on a spinner with 1 blue, 2 red, and 2 yellow sections, what is the probability of getting a red or a yellow?).	SE: 51 #32, 253 #65, 418 #50, 668-671, 672-675, 701