

GLENCOE CORRELATION
IMPACT MATHEMATICS
ALGEBRA AND MORE FOR THE MIDDLE GRADES
COURSE 3
OKLAHOMA
Priority Academic Student Skills
Mathematics Content Standards
Grade 8

CONTENT STANDARDS	PAGE REFERENCES
Standard 1: Algebraic Reasoning - The student will graph and solve linear equations and inequalities in problem-solving situations.	
1. Equations	
a. Model, write, and solve 2-step linear equations using a variety of methods.	SE: 38 #3, 39 #12, 214-218, 240-244, 245-248, 263-265
b. Graph and interpret the solution to linear equations on a number line with one variable and on a coordinate plane with two variables.	SE: 20 #8-#9, 39 #12, 42 #32, 43 #33-#39
c. Predict the effect on the graph of a linear equation when the slope changes (e.g., make predictions from graphs, identify the slope in the equation $y = mx + b$ and relate to a graph).	SE: 25-28, 33-35, 40, 43 #39, 44, 46, 51-55, 255 #22
2. Inequalities	
a. Model, write, and solve 1-step and 2-step linear inequalities with one variable.	SE: 226-231, 235, 236 TG: T226
b. Graph the solution to linear inequalities with one variable on a number line.	SE: 232-234, 236, 238, 282 #8, 285 #24
Standard 2: Number Sense - The student will use numbers and number relationships to solve problems.	
1. Rational Numbers and Proportional Reasoning	
a. Compare and order rational numbers (positive and negative integers, fractions, decimals) in real-life situations.	SE: 151, 204 #36-#37
b. Use the basic operations on rational numbers to solve problems in real-life situations (e.g., describe the effect of multiplying whole numbers by a fraction or a decimal less than 1).	SE: 120 #2, 166 #49, 218, 261, 276 #7 <i>Lab Investigation</i> 270-274 TG: T418
c. Apply ratios and proportions to solve problems.	SE: 25-28, 41 #29, 112-115, 389 #60-#62, 512 #36-#38 <i>Lab Investigation</i> 475-478
2. Exponents	
a. Use the rules of exponents to solve problems (e.g., $7^2 \cdot 7^3 = 7^5$, $a^m/a^n = a^{m-n}$).	SE: 153-155, 205 #57, 210 #9
b. Represent and interpret large numbers and numbers less than one in exponential and scientific notation.	SE: 148, 151-152, 156-157, 164-165, 167 #56, 182 #2, 208 #3-#4 <i>Lab Investigation</i> 159-161 TG: T148

CONTENT STANDARDS	PAGE REFERENCES
c. Use estimation strategies (e.g., rounding) to describe the magnitude of large numbers and numbers less than one.	SE: 161 #13
Standard 3: Geometry and Measurement - The student will use geometric properties and measurement to solve problems in a variety of contexts.	
1. Construct models, sketch (from different perspectives), and classify solid figures such as rectangular solids, prisms, cones, cylinders, pyramids, and combined forms (e.g., draw a figure that could result from making 1, 2, or 3 cuts in a given solid).	Cubes are referenced on pages 116, 117, and 129. Also see <i>Impact Mathematics Course 2</i> . SE: 9-11, 130-133, 141 #2, #3
2. Estimate and find the surface area and volume in real world settings (e.g., unwrap a box to explore surface area; use rice, 1-inch cubes, centimeter cubes, cups ... to estimate the volume of boxes, irregular shaped objects, containers).	SE: 62 #30, 63 #32, 255 #23-#24, 338 #21-#22
3. Apply knowledge of ratio and proportion to solve relationships between similar geometric figures.	SE: 206 #58, 329, 330-331, 335 #4 <i>Lab Investigation 475-477</i>
4. Formulas	
a-I. Select and apply appropriate formulas for an equation (e.g., $d = rt$, $l = prt$).	SE: 328 #30, 348 #7, 350 #12
a-II. Select and apply appropriate formulas for measurement problems (e.g., $p = 2l + 2w$, $V = lwh$).	SE: 22 #13, 23 #22-#23, 62 #30, 63 #32, 72 (<i>Remember</i>), 255 #23-#24, 338 #21-#22, 513 #50 <i>Lab Investigation 366-367</i>
b. Find the area of a "region of a region" for simple composite figures.	SE: 22 #13, 23 #22-#23, 324 #1-#2, 358-361, 464 #25
5. Develop the Pythagorean Theorem and apply the formula.	SE: 63 #31, 202 (<i>Remember</i>)
Standard 4: Data Analysis and Statistics - The student will use data analysis and statistics to interpret data in a variety of contexts.	
1. Select and apply appropriate formats (e.g., line plots, bar graphs, stem-and-leaf plots, scatter plots, histograms, circle graphs) to display collected data.	SE: 137 #21, 352 #18, 410 #36, 537 #60, 575 #6, 602-604, 626 #15, 627 #17
2. Find the range and measures of central tendency (mean, median and mode) of a set of data.	SE: 45, 53, 207 #71, 410 #36, 518, 520 #2, 537 #60
3. Determine how samples are chosen (random, limited, biased) to draw and support conclusions about generalizing a sample to a population (e.g., is the average height of a men's college basketball team a good representative sample for height predictions?).	SE: 187, 482 #25, 547-550, 605-607, 608-612, 638-641 <i>Lab Investigation 545-546</i>