Mathematics Textbook and Instructional Materials Correlation to the
2009 Grade 8 Mathematics Standards of Learning and Curriculum Framework

Publisher Cord Communications	**Text Bridges to Algebra and Geometry, Learning in Context**	**Copyright date 2010**
Contact	**Phone#**	**E-mail**

2009 Grade 8 Mathematics Standards of Learning	
STANDARD	**Correlation: Must address both the standards and the curriculum framework. Use page number and SE for Student Edition or CT for Core Technology. (Identify no more than 8 correlations.)**
8.1 The student will	
a) simplify numerical expressions involving positive exponents, using rational numbers, order of operations, and properties of operations with real numbers; and	pp. 16–23 SE, pp. 24–28 SE, pp. 36–41 SE, pp. 150–175 SE, pp. 158–166 SE, pp. 167–175 SE, pp. 258–264 SE, pp. 265–269 SE, pp. 270–276 SE, pp. 410–415 SE, pp. 416–421 SE, and pp. 422–428 SE
b) compare and order decimals, fractions, percents, and numbers written in scientific notation.	pp. 4–10 SE, pp. 251–257 SE, pp. 358–363 SE, and pp. 422–428 SE, Activity #2 pp. 398-400 SE, pp.454-456 SE

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8.2 The student will describe orally and in writing the relationships between the subsets of the real number system.	p. 440 SE. Additional material covered in supplemental material. Available for review and free download at: www.cordcommunications.com

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8.3 The student will	
a) solve practical problems involving rational numbers, percents, ratios, and proportions; and	pp. 240–244 SE, pp. 245–250 SE, pp. 251–257 SE, pp. 258–264 SE, pp. 265–269 SE, pp. 270–276 SE, pp. 300–304 SE, pp. 305–309 SE, pp. 310–316 SE, pp. 358–363 SE, and pp. 364–371 SE
b) determine the percent increase or decrease for a given situation.	pp. 380–386 SE, p. 153 #33 SE, p. 32 #14 SE

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8.4 The student will apply the order of operations to evaluate algebraic expressions for given replacement values of the variables.	pp. 16–23 SE

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8.5 The student will	
a) determine whether a given number is a perfect square; and	pp. 437–442 SE
b) find the two consecutive whole numbers between which a square root lies.	pp. 437–442 SE

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8.6 The student will	
a) verify by measuring and describe the relationships among vertical angles, adjacent angles, supplementary angles, and complementary angles; and	pp. 536–542 SE and pp. 543–547 SE
b) measure angles of less than 360°.	pp. 536–542 SE

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8.7 The student will	
a) investigate and solve practical problems involving volume and surface area of prisms, cylinders, cones, and pyramids; and	pp. 676–685 SE, pp. 686–690 SE, pp. 691–697 SE, and pp. 698–704 SE. Additional material covered in supplemental material. Available for review and free download at: www.cordcommunications.com
b) describe how changing one measured attribute of a figure affects the volume and surface area.	pp. 705–711 SE (these discuss what happens when all edges and changed)

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8.8 The student will	
a) apply transformations to plane figures; and	pp. 570–575 SE, pp. 576–581 SE, and pp. 582–588 SE
b) identify applications of transformations.	pp. 570–575 SE, pp. 576–581 SE, and pp. 582–588 SE

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8.9 The student will construct a three-dimensional model, given the top or bottom, side, and front views.	pp. 668–675 SE

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STANDARD	**Correlation: Must address both the standards and the curriculum framework. Use page number and SE for Student Edition or CT for Core Technology. (Identify no more than 8 correlations.)**
8.10 The student will	
a) verify the Pythagorean Theorem; and	pp. 443–451 SE
b) apply the Pythagorean Theorem.	pp. 443–451 SE

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8.11 The student will solve practical area and perimeter problems involving composite plane figures.	pp. 634–635 SE and p. 643 SE

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8.12 The student will determine the probability of independent and dependent events with and without replacement.	pp. 333–337 SE and 338–345 SE

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8.13 The student will	
a) make comparisons, predictions, and inferences, using information displayed in graphs; and	pp. 88–92 SE, pp. 93–98 SE, pp. 99–107 SE, and pp. 108–115 SE
b) construct and analyze scatterplots.	pp. 128–129 SE

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8.14 The student will make connections between any two representations (tables, graphs, words, and rules) of a given relationship.	pp. 506–516 SE

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8.15 The student will	
a) solve multistep linear equations in one variable with the variable on one and two sides of the equation;	pp. 200–204 SE, pp. 205–212 SE, and pp. 213–218 SE
b) solve two-step linear inequalities and graph the results on a number line; and	pp. 277–281 SE and pp. 282–288 SE
c) identify properties of operations used to solve an equation.	pp. 188–193 SE, pp. 194–199 SE, pp. 200–204 SE, and pp. 213–218 SE

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STANDARD	**Correlation: Must address both the standards and the curriculum framework. Use page number and SE for Student Edition or CT for Core Technology. (Identify no more than 8 correlations.)**
8.16 The student will graph a linear equation in two variables.	pp. 471–478 SE

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STANDARD	**Correlation: Must address both the standards and the curriculum framework. Use page number and SE for Student Edition or CT for Core Technology. (Identify no more than 8 correlations.)**
8.17 The student will identify the domain, range, independent variable, or dependent variable in a given situation.	pp. 506–516 SE, pp. 333-337 SE