

Cord Bridges to Algebra and Geometry, 3rd edition
correlation to North Carolina Mathematics Grade 8 Essential Standards

Essential Standard	Cord Bridges Lesson(s)
S.8.1 Calculate the probabilities of dependent and independent events.	6.5, 6.6, 6.7, 6.8
S.8.2 Use scatterplots to explore bivariate data.	
S.8.2.a Identify type (positive, negative) and extent (strong, weak, or none) of association of bivariate data in scatterplots.	Not Covered
S.8.2.b Model trends in bivariate data, when appropriate, with a lines of best fit.	Not Covered
S.8.2.c Interpret the line of best fit.	Not Covered
S.8.2 d Predict values.	Not Covered
S.8.3 Evaluate the extent of misuse or distortion in data.	
S.8.3.a Identify the effect of an outlier on the mean, median, mode, and range of a set of data.	2.1, 2.7
S.8.3.b Identify outliers as data point greater than 1.5 x IQR below the first quartile or 1.5 above the third quartile.	2.4
S.8.3.c Identify misuses of surveys, sampling, graphs, and statistics.	2.7
M.8.1 Interpret changes in dimensions for two and three-dimensional figures.	
M.8.1.a Identify the relationship among changes in dimensions of 2D and 3D figures.	11.1, 11.2, 11.6
M.8.1.b Model the relationships of volumes a) among cones and cylinders, and b) among pyramids and prisms, with the same base areas and heights.	12.4, 12.5
M.8.1.c Apply formulas for finding area, perimeter/circumference, and volume to identify the relationships among changes in dimensions.	11.5, 11.6, 12.2, 12.3, 12.4, 12.5, 12.6

N.8.1	
Understand the structure of the Real number system.	
N.8.1.a Identify irrational numbers.	8.5
N.8.1.b Order real numbers.	1.1, 1.2, 3.2, 5.2, 5.3, 7.1
N.8.1.c Simplify square roots of non-perfect squares, using prime factorization.	8.5, 8.6
N.8.2	
Use combinations of addition, subtraction, multiplication, and division to solve multi- step problems involving rational numbers	
N.8.2.a Develop fluency for all four operations for all rational numbers including formal algorithms.	1.4, 1.6, 3.3, 3.4, 3.5, 5.4, 5.5, 5.6
N.8.2.b Estimate the results of all four operations with rational numbers, including mental computation.	1.5, 1.7, 7.3
N.8.2.c Justify the reasonableness of solutions in meaningful contexts.	Used throughout the text especially Lesson 1.8 and Cumulative Review sections
A.8.3	
Apply linear relationships to solve problems.	
A.8.3.a Translate among verbal, tabular, graphic, and algebraic representations of linear relationships.	9.2, 9.4, 9.7
A.8.3.b Graph lines from a table, from an equation, and from a slope-intercept equation.	9.2, 9.4
A.8.3.c Determine and interpret x-intercepts (graphically) and y-intercepts.	9.4
A.8.3.d Write linear equations using slope-intercept form.	9.4
A.8.3.e Identify slope given a table, graph, linear equation or two points.	9.3
A.8.3.f Apply ratio quantities such as velocity and population density; and product quantities such as area, volume, energy, and work.	6.1, 6.2
A.8.3.g Compare two linear relationships and determine if graphs are parallel, intersect at a point or represent the same line.	9.4
A.8.3.h Solve linear equations (this involves looking at a graph, and determine the y value given the x value or vice versa and determining if an ordered pair would be the solution of a linear equation.	9.4, 9.5

G.8.1	
Apply Pythagorean Theorem to solve problems.	
G.8.1.a Understand and apply the Pythagorean Theorem	8.6
G.8.1.b Identify triangles as right triangles based on side lengths (Pythagorean triples).	8.6
G.8.2	
Use properties of similar figures and angle relationships to solve problems.	
G.8.2.a Apply angle relationships, including supplementary and complementary.	10.2
G.8.2.b Apply ratios, similarity, and proportional reasoning to solve problems.	6.1, 6.2
G.8.2.c Use properties of parallel lines being cut by a transversal to identify angle measures.	10.3
G.8.3	
Understand quadrilaterals and triangles.	
G.8.3.a Use properties of quadrilaterals to classify quadrilaterals.	10.5
G.8.3.b Apply properties of quadrilaterals (sides, angles, and diagonals) to solve problems.	10.5
G.8.3.c Classify triangles based on side and angle measures.	10.4
G.8.4	10.7, 10.8, 10.9
Infer the results of two transformations in the Cartesian plane, including using symbolic representations.	