

Cord Bridges to Algebra and Geometry, Mathematics in Context, 3rd edition
correlation to Tennessee Math Foundations I 3130 Learning Expectations

Learning Expectations	Cord Bridges Lesson(s)
Standard 1.0 – Number and Operations	
Students will develop number and operation sense needed to represent numbers and number relationships verbally, symbolically, and graphically and to compute fluently and make reasonable estimates in problem solving.	
1.1 Demonstrate an understanding of the subsets, elements, properties, and operations of the rational number system.	Lessons 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 7.1, 8.5
1.2 Connect physical, graphical, verbal, and symbolic representations of rational numbers.	Lessons 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 7.1, 8.5
1.3 Order and compare rational numbers.	Lesson 5.3
1.4 Informally describe and model the concept of additive and multiplicative inverses (e.g., opposites, reciprocals) in real life problem situations.	Lessons 3.1, 5.6
1.5 Apply number theory concepts (e.g., primes, composites, factors, divisibility, and multiples) in mathematical problem situations.	Lesson 5.1, Chapter 5 Lab
1.6 Use rational numbers to represent real-world applications (e.g., probability, proportionality).	6.1, 6.2, 6.3, 6.5, 6.7, 6.8
1.7 Use mathematical notations appropriately.	Mathematical notation is used throughout the text in examples, exercises, and applications.
1.8 Select and apply an appropriate method (i.e., mental arithmetic, paper and pencil, or technology) for computing with rational numbers, and evaluate the reasonableness of results.	Lessons 5.1, 5.2, 5.4, 5.5, 5.6, 5.7, 5.8, 7.1, 8.5
1.9 Apply estimation strategies in computation and in problem solving.	Lessons 1.2, 1.5, 1.7, Chapter 1 Lab, 7.3, 8.5
Standard 2.0 – Algebra	
Students will describe, extend, analyze, and create a wide variety of patterns and solve real-world problems using appropriate representations.	
2.1 Recognize, extend, and create geometric, spatial, and numerical patterns.	Lessons 1.9, 10.7, 10.8, 10.9, Chapter 10 Lab.
2.2 Solve problems in number theory, geometry, probability and statistics, and measurement and estimation using algebraic thinking.	Lessons 1.5, 1.7, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 6.5, 6.7, 6.8, 10.3, 10.4, 10.5, 11.4
2.3 Communicate the meaning of variables in algebraic expressions and equations.	Lessons 1.3, 4.6
2.4 Apply the concept of variable in simplifying algebraic expressions and solving equations.	Lessons 1.3, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6

2.5 Interpret graphs that depict real-world phenomena.	Lessons 9.1, 9.2, 9.3, 9.4, 9.5, 9.6
2.6 Model real-world phenomena using graphs.	Lessons 9.1, 9.2, 9.3, 9.4, 9.5, 9.6
Standard 3.0 – Geometry	
Students will investigate, model, and apply geometric properties and relationships.	
3.1 Apply geometric properties, formulas, and relationships to solve real-world problems.	Used throughout Chapters 10 and 11
3.2 Communicate position using spatial sense with two-dimensional coordinate systems.	Lessons 10.7, 10.8, 10.9, 11.2
3.3 Demonstrate an understanding of the properties and construction of geometric figures, including angles, parallel lines, perpendicular lines, triangles, circles, and quadrilaterals.	Lessons 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, Chapter 10 labs, 11.7, Chapter 11 Labs
Standard 4.0 – Measurement	
Students will become familiar with the units and processes of measurement in order to use various tools, techniques, and formulas to determine and estimate measurements in problem solving.	
4.1 Apply appropriate techniques, tools, and formulas to determine measurements.	Lessons 6.2, 8.4, 11.3, 11.4
4.2 Communicate the concepts and strategies being to estimate measurements.	Chapter 1 Lab
4.3 Apply measurement concepts and relationships in geometric problem-solving situations.	Lessons 10.2, 10.3, 10.4, 10.5, 11.1, 11.5, 11.6, 11.7
Standard 5.0 – Data Analysis and Probability	
Students will understand and apply basic statistical and probability concepts in order to organize and analyze data and to make predictions.	
5.1 Choose, construct, and analyze appropriate graphical representations for a data set including pie charts, histograms, stem and leaf plots, and scatterplots.	Lessons 2.3, 2.5, Chapter 2 Labs, 7.2, 10.2
5.2 Interpret a set of data using the appropriate measure of central tendency (mean, median, mode).	Lessons 2.1, 2.7
5.3 Determine experimental and theoretical probabilities for simple experiments.	Lessons 6.5, 6.8, Chapter 6 Labs