LARSON'S PREALGEBRA

correlated to
Georgia's Mathematics Performance Standards

Grades 6-8

GREAT SOURCE EDUCATION GROUP
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CORRELATION TO THE GEORGIA PERFORMANCE STANDARDS

Subject Area: Mathematics **State-Funded Course:** 27.02100 Mathematics/Grade 6

Textbook Title: LarsonMath.com: Prealgebra

Publisher: Great Source Education Group

Standard (Cite Number)	**Standard** (Cite specific standard)	**Where Taught** (If print component, cite page number; if non-print, cite appropriate location.)
M6N	**Numbers and Operations:** Students will understand the meaning of the four arithmetic operations as they relate to positive rational numbers and will apply these concepts and associated skills in real world situations.	**Module:** Number Theory, **All Topics** (Courses 1-3) **Module:** Fractions, **All Topics** (Courses 1-3) **Module:** Mixed Numbers, **All Topics** (Courses 1-3) **Module:** Decimals, **All Topics** (Courses 1-3) **Module:** Percents, **All Topics (**Courses 1-3) **Module:** Rational Numbers, **All Topics** (Courses 1-3)
M6N1	Students will understand the meaning of the four arithmetic operations as related to positive rational numbers and will use these concepts to solve problems.	**Module:** Number Theory, **All Topics** (Courses 1-3) **Module:** Fractions, **Topics:** Adding Fractions with Unlike Denominators (Courses 1 and 2), Subtracting Fractions with Unlike Denominators (Courses 1 and 2), Multiplying Fractions (Courses 1-3), and Dividing Fractions (Courses 1-3) **Module:** Mixed Numbers, **Topics:** Adding Mixed Numbers (Courses 1 and 2), Subtracting Mixed Numbers (Courses 1 and 2), Subtracting Mixed Numbers: Regrouping (Courses 1 and 2), Multiplying Mixed Numbers (Courses 1-3), and Dividing Mixed Numbers (Courses 1-3) **Module:** Percents, **All Topics (**Courses 1-3) **Module:** Rational Numbers, **All Topics** (Courses 1-3)

Standard (Cite Number)	**Standard** (Cite specific standard)	**Where Taught** (If print component, cite page number; if non-print, cite appropriate location.)
M6M	**Measurement:** Students will understand how to determine the volume and surface area of solid figures. They will understand and use the customary and metric systems of measurement to measure quantities efficiently and to represent volume and surface area appropriately.	**Module:** Decimals, **Topic:** Converting Units of Measure (Courses 1 and 2) **Module:** Geometry in Space, **Topics:** Volume of a Prism (Course 2), Surface Area of a Prism (Course 2), Volume of a Cylinder (Courses 2 and 3), Volume of a Pyramid (Course 3), Volume of a Cone (Course 3), Volume of a Sphere (Course 3), and Surface Area of a Cylinder (Course 3)
M6M1	Students will convert from one unit to another within one system of measurement (customary or metric) by using proportional relationships.	**Module:** Decimals, **Topic:** Converting Units of Measure (Courses 1 and 2)
M6M2	Students will use appropriate units of measure for finding length, perimeter, area, and volume and will express each quantity using the appropriate unit.	**Module:** Geometry in the Plane, **Topics:** Perimeter (Course 1), Area of a Rectangle (Course 1), Area of a Triangle (Courses 1 and 2), Circles: Area and Circumference (Courses 1 and 2), Area of a Parallelogram (Courses 2 and 3), and Area of a Trapezoid (Courses 2 and 3) **Module:** Geometry in Space, **Topics:** Volume of a Prism (Course 2), Surface Area of a Prism (Course 2), Volume of a Cylinder (Courses 2 and 3), Volume of a Pyramid (Course 3), Volume of a Cone (Course 3), Volume of a Sphere (Course 3), and Surface Area of a Cylinder (Course 3)
M6M3	Students will determine the volume of fundamental solid figures (right rectangular prisms, cylinders, pyramids, and cones).	**Module:** Geometry in Space, **Topics:** Volume of a Prism (Course 2), Volume of a Cylinder (Courses 2 and 3), Volume of a Pyramid (Course 3), Volume of a Cone (Course 3), and Volume of a Sphere (Course 3)

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M6M4	Students will determine the surface area of solid figures (right rectangular prisms and cylinders).	**Module:** Geometry in Space, **Topics:** Surface Area of a Prism (Course 2) and Surface Area of a Cylinder (Course 3)
M6G	**Geometry:** Students will further develop their understanding of plane and solid geometric figures, incorporating the use of appropriate technology and using this knowledge to solve authentic problems.	**Module:** Geometry in the Plane, **Topics:** Angles (Course 1), Classifying Polygons (Course 1), Classifying Triangles (Courses 1 and 2), Intersecting, Parallel, and Perpendicular Lines (Courses 1 and 2), Congruent and Similar Figures (Courses 1 and 2), Symmetry (Courses 1 and 2), Properties of Quadrilaterals (Course 3), and Angles of a Polygon (Course 3) **Module:** Geometry in Space, **Topics:** Classifying Solids (Course 1) and Similar Solids (Courses 2 and 3)
M6G1	Students will further develop their understanding of plane figures.	**Module:** Ratios, Rates, and Proportions, **Topic:** Solving Proportions (Courses 2 and 3) **Module:** Geometry in the Plane, **Topics:** Congruent and Similar Figures (Courses 1 and 2), Symmetry (Courses 1 and 2), Properties of Quadrilaterals (Course 3), and Angles of a Polygon (Course 3)
M6G2	Students will further develop their understanding of solid figures.	**Module:** Geometry in Space, **Topic:** Classifying Solids (Course 1)
M6A	**Algebra:** Students will investigate relationships between two quantities. They will write and solve proportions and simple one-step equations that result from problem situations.	**Module:** Ratios, Rates, and Proportions, **All Topics** (Courses 1-3) **Module:** Algebra and Equations, **Topics:** Checking a Solution of an Equation (Courses 1-3), Solving an Equations Using Mental Math (Courses 1-3), Solving Addition Equations (Courses 1-3), Solving Subtraction Equations (Courses 1-3), Solving Multiplication Equations (Courses 2 and 3), and Solving Division Equations (Courses 2 and 3)
M6A1	Students will understand the concept of ratio and use it to represent quantitative relationships.	**Module:** Ratios, Rates, and Proportions, **Topics:** Writing Ratios (Courses 1-3) and Writing Rates (Courses 2 and 3)

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M6A2	Students will consider relationships between varying quantities.	**Module:** Ratios, Rates, and Proportions, **All Topics** (Courses 1-3)
M6A3	Students will evaluate algebraic expressions, including those with exponents, and solve simple one-step equations using each of the four basic operations.	**Module:** Powers and Exponents, **Topics:** Multiplying Powers (Course 3) and Dividing Powers (Course 3) **Module:** Algebra and Expressions, **All Topics** (Courses 1-3) **Module:** Algebra and Equations, **Topics:** Checking a Solution of an Equation (Courses 1-3), Solving an Equations Using Mental Math (Courses 1-3), Solving Addition Equations (Courses 1-3), Solving Subtraction Equations (Courses 1-3), Solving Multiplication Equations (Courses 2 and 3), and Solving Division Equations (Courses 2 and 3)
M6D	**Data Analysis and Probability:** Students will demonstrate understanding of data analysis by posing questions to be answered by collecting data. They will represent, investigate, and use data to answer those questions. Students will understand experimental and theoretical probability.	**Module:** Statistics and Data Analysis, **Topics:** Pictographs (Course 1), Bar Graphs (Course 1), Line Plots (Course 1), Stem-and-Leaf Plots (Course 1), Circle Graphs (Courses 1 and 2), Line Graphs (Courses 1-3), Mean, Median, and Mode (Courses 1-3), Scatter Plots (Courses 2 and 3), and Histograms and Frequency Distributions (Courses 2 and 3) **Module:** Probability, **Topics:** The Probability of an Event (Courses 1 and 2), Expected Value (Course 2), Making Predictions (Courses 2 and 3), and Probability and Simulations (Course 3)
M6D1	Students will pose questions, collect data, represent and analyze the data, and interpret results.	**Module:** Statistics and Data Analysis, **Topics:** Pictographs (Course 1), Bar Graphs (Course 1), Line Plots (Course 1), Stem-and-Leaf Plots (Course 1), Circle Graphs (Courses 1 and 2), Line Graphs (Courses 1-3), Mean, Median, and Mode (Courses 1-3), Scatter Plots (Courses 2 and 3), and Histograms and Frequency Distributions (Courses 2 and 3)
M6D2	Students will use experimental and simple theoretical probability and will understand the nature of sampling. They will also make predictions from investigations.	**Module:** Probability, **Topics:** The Probability of an Event (Courses 1 and 2), Expected Value (Course 2), Making Predictions (Courses 2 and 3), and Probability and Simulations (Course 3)

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M6P	**Process Standards:** Each topic studied in this course should be developed with careful thought toward helping every student achieve the following process standards.	All Topics (Courses 1-3)
M6P1	Students will solve problems (using appropriate technology).	All Topics (Courses 1-3)
M6P2	Students will reason and evaluate mathematical arguments.	All Topics (Courses 1-3)
M6P3	Students will communicate mathematically.	All Topics (Courses 1-3)
M6P4	Students will make connections among mathematical ideas and to other disciplines.	All Topics (Courses 1-3)
M6P5	Students will represent mathematics in multiple ways.	All Topics (Courses 1-3)

CORRELATION TO THE GEORGIA PERFORMANCE STANDARDS

Subject Area: Mathematics **State-Funded Course:** 27.02200 Mathematics/Grade 7

Textbook Title: LarsonMath.com: Prealgebra

Publisher: Great Source Education Group

Standard (Cite Number)	**Standard** (Cite specific standard)	**Where Taught** (If print component, cite page number; if non-print, cite appropriate location.)
M7N	**Numbers and Operations:** Students will further develop their understanding of the concept of rational numbers and apply them to real world situations.	**Module:** Fractions, **All Topics** (Courses 1-3) **Module:** Mixed Numbers, **All Topics** (Courses 1-3) **Module:** Decimals, **All Topics** (Courses 1-3) **Module:** Integers, **All Topics** (Courses 1-3) **Module:** Rational Numbers, **All Topics** (Courses 1-3)
M7N1	Students will understand the meaning of positive and negative rational numbers and use them in computation.	**Module:** Fractions, **All Topics** (Courses 1-3) **Module:** Mixed Numbers, **All Topics** (Courses 1-3) **Module:** Integers, **All Topics** (Courses 1-3) **Module:** Rational Numbers, **All Topics** (Courses 1-3)
M7G	**Geometry:** Students will further develop and apply their understanding of plane and solid geometric figures through the use of constructions and transformations. Students will explore the properties of similarity and further develop their understanding of 3-dimensional figures.	**Module:** Coordinate Geometry, **Topics:** Translations of Points (Courses 1-3), Reflections of Points (Course 3), and Rotations of Points (Course 3) **Module:** Geometry in the Plane, **Topics:** Angles (Course 1), Classifying Polygons (Course 1), Classifying Triangles (Courses 1 and 2), Intersecting, Parallel, and Perpendicular Lines (Courses 1 and 2), Congruent and Similar Figures (Courses 1 and 2), Symmetry (Courses 1 and 2), Properties of Quadrilaterals (Course 3), and Angles of a Polygon (Course 3) **Module:** Geometry in Space, **Topics:** Classifying Solids (Course 1) and Similar Solids (Courses 2 and 3)
M7G1	Students will construct plane figures that meet given conditions.	**Module:** Geometry in the Plane, **Topics:** Angles (Course 1), Classifying Polygons (Course 1), Classifying Triangles (Courses 1 and 2), Intersecting, Parallel, and Perpendicular Lines (Courses 1 and 2), Congruent and Similar Figures (Courses 1 and 2), Properties of Quadrilaterals (Course 3), and Angles of a Polygon (Course 3)

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M7G2	Students will demonstrate understanding of transformations.	**Module:** Coordinate Geometry, **Topics:** Translations of Points (Courses 1-3), Reflections of Points (Course 3), and Rotations of Points (Course 3)
M7G3	Students will use the properties of similarity and apply these concepts to geometric figures.	**Module:** Ratios, Rates, and Proportions, **Topic:** Solving Proportions (Courses 2 and 3) **Module:** Geometry in the Plane, **Topic:** Congruent and Similar Figures (Courses 1 and 2) **Module:** Geometry in Space, **Topic:** Similar Solids (Courses 2 and 3)
M7G4	Students will further develop their understanding of three-dimensional figures.	**Module:** Geometry in Space, **Topic:** Classifying Solids (Course 1)
M7A	**Algebra:** Students will demonstrate an understanding of linear relations and fundamental algebraic concepts.	**Module:** Algebra and Expressions, **All Topics** (Courses 1-3) **Module:** Algebra and Equations, **All Topics** (Courses 1-3) **Module:** Coordinate Geometry, **Topics:** Plotting Points in a Plane: First Quadrant (Courses 1 and 2), Plotting Points in a Plane: All Quadrants (Courses 1-3), and Graphing Linear Equations in Two Variables (Courses 2 and 3)
M7A1	Students will represent and evaluate quantities using algebraic expressions.	**Module:** Algebra and Expressions, **All Topics** (Courses 1-3)
M7A2	Students will understand and apply linear equations in one variable.	**Module:** Algebra and Equations, **All Topics** (Courses 1-3)
M7A3	Students will understand relationships between two variables.	**Module:** Algebra and Expressions, **Topic:** Functions (Courses 1-3) **Module:** Coordinate Geometry, **Topics:** Plotting Points in a Plane: First Quadrant (Courses 1 and 2), Plotting Points in a Plane: All Quadrants (Courses 1-3), and Graphing Linear Equations in Two Variables (Courses 2 and 3)

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M7D	**Data Analysis and Probability:** Students will demonstrate understanding of data analysis by posing questions, collecting data, analyzing the data using measures of central tendency and variation, and using the data to answer the questions posed. Students will understand the role of probability in sampling.	**Module:** Statistics and Data Analysis, **Topics:** Pictographs (Course 1), Bar Graphs (Course 1), Line Plots (Course 1), Stem-and-Leaf Plots (Course 1), Circle Graphs (Courses 1 and 2), Line Graphs (Courses 1-3), Mean, Median, and Mode (Courses 1-3), Scatter Plots (Courses 2 and 3), Histograms and Frequency Distributions (Courses 2 and 3), and Box-and-Whisker Plots (Courses 2 and 3) **Module:** Probability, **Topics:** The Probability of an Event (Courses 1 and 2), Expected Value (Course 2), Making Predictions (Courses 2 and 3), and Probability and Simulations (Course 3)
M7D1	Students will pose questions, collect data, represent and analyze the data, and interpret results.	**Module:** Statistics and Data Analysis, **Topics:** Pictographs (Course 1), Bar Graphs (Course 1), Line Plots (Course 1), Stem-and-Leaf Plots (Course 1), Circle Graphs (Courses 1 and 2), Line Graphs (Courses 1-3), Mean, Median, and Mode (Courses 1-3), Scatter Plots (Courses 2 and 3), Histograms and Frequency Distributions (Courses 2 and 3), and Box-and-Whisker Plots (Courses 2 and 3)
M7P	**Process Standards:** The following process standards are essential to mastering each of the mathematics content standards. They emphasize critical dimensions of the mathematical proficiency that all students need.	All Topics (Courses 1-3)
M7P1	Students will solve problems (using appropriate technology).	All Topics (Courses 1-3)
M7P2	Students will reason and evaluate mathematical arguments.	All Topics (Courses 1-3)

Standard (Cite Number)	**Standard** (Cite specific standard)	**Where Taught** (If print component, cite page number; if non-print, cite appropriate location.)
M7P3	Students will communicate mathematically.	All Topics (Courses 1-3)
M7P4	Students will make connections among mathematical ideas and to other disciplines.	All Topics (Courses 1-3)
M7P5	Students will represent mathematics in multiple ways.	All Topics (Courses 1-3)

CORRELATION TO THE GEORGIA PERFORMANCE STANDARDS

Subject Area: Mathematics **State-Funded Course:** 27.02200 Mathematics/Grade 8

Textbook Title: LarsonMath.com: Prealgebra

Publisher: Great Source Education Group

Standard (Cite Number)	**Standard** (Cite specific standard)	**Where Taught** (If print component, cite page number; if non-print, cite appropriate location.)
M8N	**Numbers and Operations:** Students will understand the numeric and geometric meaning of square root, apply properties of integer exponents, and use scientific notation.	**Module:** Integers, **Topics:** Negative and Zero Exponents (Courses 2 and 3), Scientific Notation (Courses 2 and 3), and Scientific Notation: Multiplying and Dividing (Course 3) **Module:** Radicals, **Topics:** Writing Square Roots (Courses 1-3) and Approximating Square Roots (Course 3)
M8N1	Students will understand different representations of numbers including square roots, exponents, and scientific notation.	**Module:** Powers and Exponents, **All Topics** (Courses 1-3) **Module:** Integers, **Topics:** Negative and Zero Exponents (Courses 2 and 3), Scientific Notation (Courses 2 and 3), and Scientific Notation: Multiplying and Dividing (Course 3) **Module:** Radicals, **Topics:** Writing Square Roots (Courses 1-3), Approximating Square Roots (Course 3), Irrational Numbers (Course 3), and The Real Number System (Course 3)
M8G	**Geometry:** Students will use and apply geometric properties of plane figures, including congruence and the Pythagorean theorem.	**Module:** Geometry in the Plane, **Topics:** Angles (Course 1), Classifying Polygons (Course 1), Classifying Triangles (Courses 1 and 2), Intersecting, Parallel, and Perpendicular Lines (Courses 1 and 2), Congruent and Similar Figures (Courses 1 and 2), Symmetry (Courses 1 and 2), Properties of Quadrilaterals (Course 3), Pythagorean Theorem (Courses 2 and 3), and Angles of a Polygon (Course 3)
M8G1	Students will understand and apply the properties of parallel and perpendicular lines and understand the meaning of congruence.	**Module:** Geometry in the Plane, **Topics:** Intersecting, Parallel, and Perpendicular Lines (Courses 1 and 2) and Congruent and Similar Figures (Courses 1 and 2)
M8G2	Students will understand and use the Pythagorean theorem.	**Module:** Geometry in the Plane, **Topic:** Pythagorean Theorem (Courses 2 and 3)

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M8A	**Algebra:** Students will use linear algebra to represent, analyze and solve problems. They will use equations, tables, and graphs to investigate linear relations and functions, paying particular attention to slope as a rate of change.	**Module:** Algebra and Expressions, **Topic:** Functions (Courses 1-3) **Module:** Algebra and Inequalities, **All Topics** (Courses 1-3) **Module:** Algebra and Equations, **All Topics** (Courses 1-3) **Module:** Coordinate Geometry, **Topics:** Graphing Linear Equations in Two Variables (Courses 2 and 3), Finding the Slope of a Line (Course 3), The Slope-Intercept Form of a Line (Course 3), and Graphing Linear Inequalities in Two Variables (Course 3)
M8A1	Students will use algebra to represent, analyze, and solve problems.	**Module:** Algebra and Expressions, **All Topics** (Courses 1-3) **Module:** Algebra and Equations, **All Topics** (Courses 1-3)
M8A2	Students will understand and graph inequalities in one variable.	**Module:** Algebra and Inequalities, **All Topics** (Courses 1-3) **Module:** Coordinate Geometry, **Topic:** Graphing Linear Inequalities in Two Variables (Course 3)
M8A3	Students will understand relations and linear functions.	**Module:** Algebra and Expressions, **Topic:** Functions (Courses 1-3) **Module:** Coordinate Geometry, **Topics:** Graphing Linear Equations in Two Variables (Courses 2 and 3) and Finding the Slope of a Line (Course 3), The Slope-Intercept Form of a Line (Course 3)
M8A4	Students will graph and analyze graphs of linear equations.	**Module:** Coordinate Geometry, **Topics:** Graphing Linear Equations in Two Variables (Courses 2 and 3), Finding the Slope of a Line (Course 3) and The Slope-Intercept Form of a Line (Course 3)
M8A5	Students will understand systems of linear equations and use them to solve problems.	Not covered
M8D	**Data Analysis and Probability:** Students will use and understand set theory and simple counting techniques; determine the theoretical probability of simple events; and make inferences from data, particularly data that can be modeled by linear functions.	**Module:** Coordinate Geometry, **Topics:** Graphing Linear Equations in Two Variables (Courses 2 and 3), Finding the Slope of a Line (Course 3) and The Slope-Intercept Form of a Line (Course 3) **Module:** Statistics and Data Analysis, **Topic:** Scatter Plots (Courses 2 and 3) **Module:** Counting Principles, **All Topics** (Courses 1-3) **Module:** Probability, **All Topics** (Courses 1-3)

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M8D1	Students will apply basic concepts of set theory.	**Module:** Probability, **Topic:** Venn Diagrams (Course 2)
M8D2	Students will determine the number of outcomes related to a given event.	**Module:** Counting Principles, **All Topics** (Courses 1-3)
M8D3	Students will use the basic laws of probability.	**Module:** Probability, **All Topics** (Courses 1-3)
M8D4	Students will organize, interpret, and make inferences from statistical data.	**Module:** Coordinate Geometry, **Topics:** Graphing Linear Equations in Two Variables (Courses 2 and 3), Finding the Slope of a Line (Course 3) and The Slope-Intercept Form of a Line (Course 3) **Module:** Statistics and Data Analysis, **Topic:** Scatter Plots (Courses 2 and 3)
M8P	**Process Standards:** The following process standards are essential to mastering each of the mathematics content standards. They emphasize critical dimensions of the mathematical proficiency that all students need.	All Topics (Courses 1-3)
M8P1	Students will solve problems (using appropriate technology).	All Topics (Courses 1-3)
M8P2	Students will reason and evaluate mathematical arguments.	All Topics (Courses 1-3)
M8P3	Students will communicate mathematically.	All Topics (Courses 1-3)
M8P4	Students will make connections among mathematical ideas and to other disciplines.	All Topics (Courses 1-3)
M8P5	Students will represent mathematics in multiple ways.	All Topics (Courses 1-3)

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