

**Course Description**

**Power Standards**

- MaPS1 The student will be able to apply understandings of the number system.
- MaPS2 The student will be able to apply knowledge of equations and expressions
- MaPS3 The student will be able to connect ratios and proportions to real-world situations.
- MaPS4 The student will be able to apply real-world and mathematical problems involving geometry.
- MaPS5 The student will be able to explain statistics and probability.

**Learning target**

- MaPS1.LT1 I can identify, compare, and order positive and negative integers and rational numbers.
- MaPS1.LT2 I can compute multi-digit rational numbers and find common factors and multiples.
- MaPS1.LT3 I can divide fractions by fractions.
- MaPS2.LT1 I can use order of operations to read, write, and evaluate expressions with variables.
- MaPS2.LT2 I can write and evaluate equations and inequalities.
- MaPS2.LT3 I can analyze relationships between independent and dependent variables.
- MaPS3.LT1 I can understand ratios and unit rates by multiplying and dividing quantities to evaluate unit rates.
- MaPS3.LT2 I can use ratio and rate reasoning to solve real-world and mathematical problems.
- MaPS4.LT1 I can compose and decompose irregular figures and calculate area and surface area.
- MaPS4.LT2 I can find the volume of a right rectangular prism with fractional edge lengths.
- MaPS4.LT3 I can draw polygons in the coordinate plane given coordinates for the vertices.
- MaPS5.LT1 I can summarize and apply measures of central tendencies and variabilities.
- MaPS5.LT2 I can select and create the appropriate display for a given data set.

**Course Details**

UNIT: Number System -- 8 Week(s)

UNIT: Expressions and Equations -- 7 Week(s)

UNIT: Ratios and Proportional Relationships -- 5 Week(s)

UNIT: Geometry -- 5 Week(s)

UNIT: Statistics and Probability -- 5 Week(s)

**Course Description**

Seventh grade math is an extension of skills learned in 6th grade, which follow the Missouri Learning Standards (MLS). Students will be exposed to mathematical concepts in five domains: Number System, Expressions and Equations, Ratio and Proportional Relationships, Geometry, Statistics and Probability. Through these practices, the students will acquire the knowledge and skills to gather, analyze, and apply information highlighted in real-world situations.

**Power Standards**

1. The student will be able to solve problems involving rational numbers.
2. The student will be able to solve problems for an unknown variable.
3. The student will be able to solve problems involving proportions. (7.RP.A.1)
4. The student will be able to solve problems involving two-and-three dimensional figures. (7.GM.A.1; 7.GM.A.2; 7.GM.A.3; 7.GM.B.4)
5. The student will be able to solve problems involving statistics and probability.

**Learning target**

- 1.1 I can apply all operations with integers. (7.NS.A.1; 7.NS.A.2; 7.NS.A.3)
- 1.2 I can apply all operations with decimals. (7.NS.A.1; 7.NS.A.2; 7.NS.A.3)
- 1.3 I can apply all operations with fractions. (7.NS.A.1; 7.NS.A.2; 7.NS.A.3)
- 2.1 I can generate equivalent expressions. (7.EE1.A.1; 7.EE1.A.2; 7.EE1.B.3)
- 2.2 I can solve equations. (7.EE1.B.3; 7.EE1.B.4)
- 2.3 I can solve inequalities. (7.EE1.B.4)
- 3.1 I can represent proportional relationships. (7.RP.A.2)
- 3.2 I can use proportional relationships to solve percent problems. (7.RP.A.3)
- 4.1 I can solve problems involving angle measure. (7.GM.B.5)
- 4.2 I can solve problems involving surface area. (7.GM.B.6)
- 4.3 I can solve problems involving volume. (7.GM.B.6)
- 5.1 I can draw informal comparative inferences about two populations. (7.DSP.A.1; 7.DSP.A.2; 7.DSP.B.3; 7.DSP.B.4)
- 5.2 I can use a model to predict the probability of an event. (7.DSP.C.5; 7.DSP.C.6; 7.DSP.C.7; 7.DSP.C.8)

**Course Details**

**UNIT: The Number System** -- 9 Week(s)

**TOPIC: Integers** -- 16 Day(s)

**TOPIC: Decimals** -- 12 Day(s)

**TOPIC: Fractions** -- 16 Day(s)

**UNIT: Expressions and Equations** -- 8 Week(s)

**TOPIC: Equivalent Expressions** -- 12 Day(s)

**TOPIC: Equations** -- 18 Day(s)

**TOPIC: Inequalities** -- 10 Day(s)

**UNIT: Ratio and Proportions** -- 9 Week(s)

**TOPIC: Rates, ratios, unit rates** -- 10 Day(s)

**TOPIC: Constant of proportionality** -- 5 Day(s)

**TOPIC: Percent problems** -- 20 Day(s)

**TOPIC: Scale drawings** -- 10 Day(s)

**UNIT: 2D and 3D Geometry** -- 7 Week(s)

**TOPIC: Angle Relationships** -- 10 Day(s)

**2016-2017 Math 7**

Raymore-Peculiar  
Math  
Grade 7, Duration 1 Year  
Required Course

TOPIC: Area -- 5 Day(s)

TOPIC: Circles -- 5 Day(s)

TOPIC: Surface Area -- 8 Day(s)

TOPIC: Volume -- 7 Day(s)

UNIT: Statistics and Probability -- 4 Week(s)

TOPIC: Statistics -- 10 Day(s)

TOPIC: Probability -- 10 Day(s)

**Course Description**

This course is designed to prepare students for mathematics at the high school level. Students will be exposed to mathematical concepts in five domains from the Missouri Learning Standards (MLS): Number System, Expressions and Equations, Functions, Geometry, Statistics and Probability. Students will develop concepts and skills that further both thinking and reasoning abilities. In addition, students will recognize and apply various problem-solving techniques used to investigate and understand mathematical content areas and solve real-world problems.

**Power Standards**

1. The student will be able to approximate irrational numbers as rational numbers.
2. The student will be able to evaluate expressions.
3. The student will be able to analyze and solve linear equations, inequalities and systems of linear equations.
4. The student will be able to evaluate functions and proportional relationships.
5. The student will be able to apply various geometric principles.
6. The student will be able to investigate statistics and probability.

**Learning target**

- 1.1 I can differentiate between rational and irrational numbers. (8.NS.A.1)
- 1.2 I can use the approximation of irrational numbers. (8.NS.A.2, 8.EE1.A.2)
- 2.1 I can apply the properties of integer exponents. (8.EE1.A.1)
- 2.2 I can perform operations with integers expressed in scientific notation. (8.EE1.A.3, 8.EE1.A.4)
- 3.1 I can identify the number of solutions in an equation. (8.EE1.C.7)
- 3.2 I can solve systems algebraically and estimate solutions by graphing. (8.EE1.C.8)
- 3.3 I can identify the number of solutions in an inequality. (8.EE1.C.7)
- 4.1 I can compare proportional relationships and explain slope. (8.EE1.B.5, 8.EE1.B.6)
- 4.2 I can compare properties of functions. (8.F.A.1, 8.F.A.2, 8.F.A.3)
- 4.3 I can construct functions. (8.F.B.4, 8.F.B.5)
- 5.1 I can describe effects of dilation, translations, rotations, and reflections on two-dimensional figures using coordinates. (8.GM.A.1, 8.GM.A.2, 8.GM.A.3, 8.GM.A.4)
- 5.2 I can establish informal arguments about angle relationships. (8.GM.A.5)
- 5.3 I can apply the Pythagorean Theorem to solve mathematical problems. (8.GM.B.6, 8.GM.B.7, 8.GM.B.8)
- 5.4 I can use formulas to solve problems involving surface area and volume. (8.GM.C.9)
- 6.1 I can explain patterns of association related to interpreting bivariate data. (8.DSP.A.1, 8.DSP.A.2, 8.DSP.A.3)
- 6.2 I can interpret and summarize data from tables using frequency tables. (8.DSP.A.4)

**Course Details**

**UNIT: Irrational Numbers** -- 5 Week(s)

**TOPIC: Rational and Irrational Numbers** -- 12 Day(s)

**TOPIC: Approximation** -- 12 Day(s)

**UNIT: Expressions** -- 4 Week(s)

**TOPIC: Properties of Integer Exponents** -- 6 Day(s)

**TOPIC: Square Roots** -- 4 Day(s)

**TOPIC: Estimating Integer Powers** -- 4 Day(s)

**TOPIC: Scientific Notation** -- 5 Day(s)

**UNIT: Equations** -- 7 Week(s)

**TOPIC: One-Step Equations** -- 3 Day(s)

**TOPIC: Two-Step Equations** -- 3 Day(s)

**TOPIC: Multi-Step Equations** -- 4 Day(s)

TOPIC: Solving with variables on both sides -- 6 Day(s)

TOPIC: Writing Equations -- 4 Day(s)

TOPIC: Equation Word Problems -- 4 Day(s)

TOPIC: Solving Systems by Graphing -- 4 Day(s)

TOPIC: Solving Systems by Substitution -- 3 Day(s)

TOPIC: Solving Systems by Elimination -- 3 Day(s)

TOPIC: System Word Problems -- 3 Day(s)

UNIT: Functions -- 4 Week(s)

TOPIC: Input/Output/Independent/Dependent -- 2 Day(s)

TOPIC: Rise/Run/Slope/Rate of Change -- 4 Day(s)

TOPIC: Slope Intercept form -- 3 Day(s)

TOPIC: Linear Functions -- 3 Day(s)

TOPIC: Non-Linear Functions -- 2 Day(s)

UNIT: Geometry -- 5 Week(s)

TOPIC: Similarity/Congruence -- 4 Day(s)

TOPIC: Transformations -- 4 Day(s)

TOPIC: Properties of Triangles -- 4 Day(s)

TOPIC: Pythagorean Theorem -- 4 Day(s)

TOPIC: Volume -- 4 Day(s)

UNIT: Statistics and Probability -- 4 Week(s)

TOPIC: Patterns of Association -- 5 Day(s)

TOPIC: Linear Associations -- 5 Day(s)

TOPIC: Line of Best Fit -- 5 Day(s)

TOPIC: Frequency Tables -- 5 Day(s)