

Seventh Grade Math Course Description

Updated 3/2020

Seventh grade math will deepen students' understanding of ratios and proportions, number systems, algebraic expressions, equations, and inequalities, geometric concepts, and statistics and probability. Students will analyze and apply these skills to real world situations as measured by performance-based and skill-based assessments.

Seventh Grade Math Big Ideas

1. Tables and graphs can be used to represent proportional relationships that exist in the real world.
2. The Real Number System is made up of infinite subsets, including the sets of Whole Numbers, Integers, Rational Numbers, and Irrational Numbers.
3. Expressions, Equations, and Inequalities can be used to represent and solve real-world situations.
4. By analyzing the relationship that exists between components of geometric figures we can find the unknown measures.
5. The likelihood of an event occurring can be described numerically and used to make predictions.
6. Data can be collected, represented, and organized by asking specific questions designed to produce desired information about a population.

ELO #	Essential Learner Outcome Description	Standards
1	Students will apply, extend, and model on a number line the understanding of addition and subtraction of rational numbers to solve real-world and mathematical problems.	7.NS.A.1,3
2	Students will apply and extend the understanding of multiplication and division of rational numbers to solve real-world and mathematical problems	7.NS.A.2,3
3	Students will apply proportional relationships to solve multi-step real-world and mathematical problems in tables, graphs, equations, and written forms.	7.RP.A.1,2,3
4	Students will create and apply numerical and algebraic expressions, equations, and inequalities with variables to solve real-world and mathematical problems.	7.EE1.B. 1,2
5	Students will apply the properties of operations to create equivalent expressions with variables.	7.EE1.A.1,2
6	Students will create and identify the relationships between geometric figures and scale drawings.	7.GM.A.1,2,3,4
7	Students will solve real-life and mathematical problems involving the geometric concepts of angle measure, area, surface area, and volume.	7.GM.A.4 7.GM.B.1,2
8	Students will create, use, and evaluate probability models in various forms.	7.DSP.C.2,3,4
9	Students will analyze chance processes and determine the likelihood of the event.	7.DSP.C. 1,2
10	Students will be able to create, interpret, and make inferences about populations from various data samples using center and measures of variability.	7.DSP.A.1,2 7.DSP.B.1,2