

Curriculum at a Glance
Mathematics
Grade 7 - Course 3 (above grade level math)

Mathematics is a vigorous and growing discipline – a universal language useful for communication and research in other disciplines. We want our students to reason and communicate mathematically, to be mathematical problem-solvers, to value mathematics and to feel confident in their ability to use mathematics. Throughout the school year, math teachers at MMS foster and emphasize the following mathematical practices:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Grade 7 Course 3 includes all units of study from Grade 8 Course 3 and half of the course content from Grade 7 Course 2. This course is designed to prepare students to take Algebra in Grade 8.

Unit Name	Content
Equations	Writing and Simplifying Expressions Solving Equations (simple, multi-step, variables on both sides) Rewriting Equations and Formulas Inequalities (same as above)
Angles and Triangles	Parallel lines and Transversals Adjacent and Vertical Angles Angles of Triangles Complementary and Supplementary Angles Classify Triangles and Quadrilaterals Polygons (Interior and Exterior Angles) Similar Triangles Congruent Figures Find Perimeters and Areas of Congruent Figures
Graphing and Writing Linear Equations	Graph Linear Equations Slope of a Line Graph Proportional Relationships Slopes of Parallel and Perpendicular Lines Graph Linear Equations in Slope-Intercept and Standard Form Writing Equations in Slope-Intercept and Point-Slope Form
Systems of Linear Equations	Solving Systems of Linear Equations by Graphing Solving Systems of Linear Equations by Substitution Solving Systems of Linear Equations by Elimination Solutions of Systems (One solution, No solution, Infinitely Many)
Circles And Area	Area of Circles Circumference of Circles Perimeter and Area of Composite Figures
Surface Area and Volume	Surface Area and Volume of Right Prisms Surface Area and Volume of Pyramids Surface Area of Cylinders

Real Numbers and the Pythagorean Theorem	Square Roots Approximating Square Roots The Pythagorean Theorem Apply the Pythagorean Theorem
Probability	Outcomes and Events Probability Experimental and Theoretical Probability Compound Events Independent and Dependent events
Exponents and Scientific Notation	Exponents (all operations) Zero and Negative Exponents Scientific Notation
Transformations	Translations Reflections Rotations Dilations