8th Grade Math Curriculum Outline

*Here are the end goals curriculum to cover in 6th grade math for each academic year.

Keep in mind, this is an ideal. With school activities, unexpected weather, sometimes not every chapter is able to be covered. HOWEVER, what isn't covered in one year's curriculum is still reviewed and recovered in some form in the other middle school years so it WILL still be taught.

Also, while concepts are taught, reinforcement may be needed outside the school walls. With many concepts, there are steps involved and some students may need to review & study those steps outside of the classroom for sake of retention. If you have any questions, feel free to fast direct me for any further clarification.

| Chapter 1 | →Rational numbers: Adding, subtracting, multiplying & dividing →Greatest Common Factor & Least Common Multiple |
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| Chapter 2 | →Scientific Notation: Writing in, multiplying, & dividing →Perfect squares, square roots, & The Pythagorean Theorem →The Real numbers & various properties →Irrational numbers |
| Chapter 3 | \rightarrow Expressions & equations w/ rational numbers \rightarrow Solving 1-step & multi step equations w/ rational numbers |
| Chapter 4 | →Inequalities & solution sets →Solving 1 step & 2 step inequalities |
| Chapter 5 | →Polynomials & degrees of polynomials →Adding & subtracting polynomials →Multiplying & dividing monomials →Special cases for monomials & polynomials |
| Chapter 6 | →Relations & functions →Slope & intercepts →Equations/functions & various forms →Parallel & perpendicular lines →Solving systems of equations →Systems of inequalities |
| Chapter 7 | →Ratios, rates, & unit rates →Proportions |

| Chapter 8 | →Fractions, decimals, & percents →Finding the base, rate or portion (percents) →Simple & compound interest |
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| Chapter 9 | →Angles & polygons |
| Chapter 10 | →Perimeter & missing dimensions →Area of polygons →Translations, reflections, rotations, & dilations |
| Chapter 11 | →Arithmetic & geometric sequences →Relationships, graphs, & functions |
| Chapter 12 | \rightarrow Surface area of prisms, cylinders, pyramids, & cones \rightarrow Volume of prisms, cylinders, pyramids, & cones \rightarrow Similar 3-D figures and the effect of changing dimensions |
| Chapter 13 | \rightarrow Surveys & samples \rightarrow Studying various types of graphs (stem & leaf, wisker, etc.) |
| Chapter 14 | →Theoretical versus experimental probability →Probability & odds →Permutations & combinations →Conjectures & counterexamples |

