

Math Grade 8

Mrs. Rivera

Topics Covered and Reviewed

- Rational Numbers- estimating; adding, subtracting, multiplying, & dividing rational numbers; integral exponents; GCF, LCM, LCD; and order of operations
- Real Numbers- scientific notation; perfect squares & square roots; irrational square roots; right triangles; and the Pythagorean Theorem
- Expressions and Equations- numeric and algebraic equations; one, two, & multi-step equations with and without grouping symbols; multi-step equations using fractions & decimals; repeating decimals as rational numbers; absolute value equations; and literal equations
- Inequalities- solution sets for inequalities; one, two, & multi-step inequalities using addition, subtraction, multiplication & division with variables on both sides of an equation; multi-step inequalities using fractions & decimals; compound inequalities; and geometric inequalities
- Polynomials- Modeling, adding, subtracting, multiplying, dividing, & factoring of polynomials
- Linear Functions and Inequalities, & Patterns and Non-Linear Functions- graphing linear & non-linear functions; scatter plots; slope and slope intercept; solving systems of equations; algebraic fallacies; quadratic functions; & inverse variations
- Ratio & Proportion and Percent Applications- rates, conversion factors & measurement systems; directive/partitive/inverse proportions; trigonometric ratios; indirect measurement; rate & applications; base & applications; percent of change; and simple & compound interest
- Data Analysis & Statistics, Probability & Logic- data collection; stem-and-leaf plots; box and whisker plots; multiple bar graphs; histograms; theoretical & experimental probability; mutually exclusive and overlapping events; permutations; combinations; conjectures, and counterexamples
- Geometry- angles & angle pairs; circle graphs; angle, line, circle, & triangle construction; perimeter & area of polygons & circles; reflections, dilations, rotations, tessellations, & translations; surface area & volume of 3-D shapes
- Problem Solving Strategies- making a drawing, organizing data, guess & check, finding a pattern, logical reasoning, solving a simpler problem, working backward, account for all possibilities & impossible solutions

Technology & Resources

- Student Interactive Notebooks
- Textbook: Sadlier Oxford Foundations of Algebra
- Thinking maps
- STEM activities
- Quizlet
- Educreations
- Xtra Math
- IXL
- Projector
- Student iPads
- Classroom student computers

Absences

- If a student is absent, the child is responsible for turning in all missed work within three days. For long illnesses, teachers will be flexible with make-up work. Make-up work not turned in on time will result in a zero. (This is a change from the 2015-2016 school year.)
- For missed work due to absences, the gradebook will reflect a “1” until the student work is made up or the make-up work deadline has passed.