

✚ **Math Program:** The Scott Foresman/Addison Wesley textbook series is used in grades three through five. Sixth through eighth grades use the Glencoe Mathematics textbook series, while the eighth pre-algebra students utilize the Glencoe Pre Algebra text. All texts adhere to the National Standards for Teachers of Math and the Louisiana Grade Level Expectations for mathematics. All classes are taught in heterogeneously mixed homeroom classes with the exception of eighth grade. Eighth graders are ability grouped for math. Students are engaged in learning math skills through the use of pencil and paper, manipulatives, power point presentations, Starboards, white boards, write-on wipe-off boards, digital cameras, computers, etc. Sixth through eighth grades focus on Application and Concepts of math skills and facts.

✚ **Sixth grade** covers the following information:

1. Whole Numbers, Algebra and Statistics: plan for problem solving, divisibility patterns, prime factors, powers and exponents, order of operations, variables and expressions (Algebra), solving equations, (Algebra), area of rectangles, frequency tables, using a graph, bar graphs and line graphs, circle graphs, making predictions, stem-and-leaf plots, mean, median, mode and range, box-and-whiskers plots, analyzing graphs
2. Decimals: modeling decimals, representing decimals, comparing and ordering decimals, rounding decimals, estimating sums and differences, adding and subtracting decimals, multiplying decimals by whole numbers, dividing decimals by whole numbers, dividing by decimals, perimeter, circumference
3. Fractions: greatest common factor, simplifying fractions, mixed numbers and improper fractions, greatest common factor, least common multiple, comparing and ordering fractions, writing decimals as fractions, writing fractions as decimals, rounding fractions, rounding fractions and mixed numbers, estimating sums and differences, adding and subtracting fractions with like denominators, common denominators, adding and subtracting fractions with unlike denominators, adding and subtracting mixed numbers, subtracting mixed numbers with renaming, estimating products, multiplying fractions, multiplying mixed numbers, dividing fractions, dividing mixed numbers, sequences
4. Algebra: integers, zero pairs, adding integers, subtracting integers, multiplying integers, dividing integers, coordinate plane, distributive property, solving addition equations using models, solving subtraction equations using models, solving equations, solving multiplication equations, solving inequalities using models, solving two-step equations, write and equation, functions, graphing functions
5. Ration and Proportion: ratios, ratios and tangrams, solving proportions, scale drawings and models, modeling percents, percents and fractions, percents and decimals, percent of a number, solve a simpler problem, estimating with percents, simulations, theoretical probability, experimental and theoretical probability, outcomes, bias, making predictions, finding probabilities, probability and area, probability of independent events
6. Measurement and Geometry: area and perimeter, length in the customary system, capacity and weight in the customary system, the metric system, length in the metric system, significant digits, mass and capacity in the metric system, changing metric units, measures of time, angles, using angle measures, bisectors, two-dimensional figures, triangles and quadrilaterals, lines of symmetry, transformations, similar and congruent figures, tessellations, area of parallelograms, area of triangles, area of trapezoids, area of

circles, making circle graphs, three-dimensional figures, volume of rectangular prisms, surface area of rectangular prisms

✚ **Seventh grade** continues the applications and concepts taught in sixth grade by studying the following:

1. Decimals, Algebra and Statistics: powers and exponents, order of operations, variables and expressions, equations, evaluating expressions, properties, sequences, metric system, scientific notation, frequency tables, making predictions, line plots, mean, median and mode, stem-and-leaf plots, box-and whisker plots, bar graphs and histograms, multiple-line and multiple-bar graphs, misleading statistics
2. Integers and Algebra: integers and absolute value, comparing and ordering integers, coordinate plane, graphing points on a coordinate plane, adding integers, subtracting integers, multiplying integers, dividing integers, writing expressions and equations, solving addition and subtraction equations, solving multiplication equations, solving two-step equations, inequalities, functions and linear equations, lines and slope
3. Fractions: prime factorization, greatest common factor, simplifying fractions, fractions and decimals, fractions and percents, percents and decimals, least common multiple, comparing and ordering rational numbers, estimating with fractions, adding and subtracting fractions, adding and subtracting mixed numbers, multiplying fractions and mixed numbers, dividing fractions and mixed numbers, changing customary units, perimeter and area, circumference, circles and circumference
4. Proportional Reasoning: ratios, rates, rate of change, solving proportions, scale drawings, fractions, decimals and percents, percents greater than 100% and percents less than 1%, percent of a number, the percent proportion, percent and estimation, the percent equation, using statistics to predict, percent of change, sales tax and discount, simple interest, simple events, tree diagrams, fundamental counting principle, combinations, theoretical and experimental probability, independent and dependent events
5. Geometry and Measurement: measuring angles, angles, angle relationships, triangles, quadrilaterals, similar figures, polygons and tessellations, translations, reflections, rotations, squares and square roots, estimating square roots, the Pythagorean Theorem, area of parallelograms, area of triangles and trapezoids, area of circles, area of complex figures, area models and probability, drawing three-dimensional figures, volume of rectangular prisms, volume of cylinders, nest and surface area, surface area of rectangular prisms, surface are of cylinders, precision and measurement

✚ **Eighth grade** is divided into three groups according to ability:

- Small math group (slower pacing)
- Middle math group (middle level average pacing)
- Pre Algebra group (upper level quicker pacing)

The small math group and middle math group continue the application and concepts building a solid mathematical base for high school by learning the following:

1. Real Numbers and Algebra: variables, expressions, and properties, integers and absolute value, adding integers, subtracting integers, multiplying integers, dividing integers, writing expressions and equations, solving addition and subtraction equations, solving multiplication and division equations, fractions and decimals, comparing and ordering ration numbers, multiplying rational numbers, dividing rational numbers, adding and

subtracting like fractions, adding and subtracting unlike fractions, solving equations with rational numbers, powers and exponents, binary numbers and scientific notation, square roots, estimating square roots, Venn diagram, real number system, Pythagorean Theorem, using the Pythagorean Theorem, graphing irrational numbers, distance on the coordinate plane

2. Proportional Reasoning: ratios and rates, rate of change, slope, solving proportions, similar polygons, scale drawings and models, indirect measurement, trigonometry, dilations, ratios and percents, fractions, decimals and percents, the percent proportion, finding percents mentally, percent and estimation, percent equation, percent of change, simple interest
3. Geometry and Measurement: line and angle relationships, triangles and angles, special right triangles, perpendicular bisectors, classifying quadrilaterals, congruent polygons, symmetry, reflections, translations, rotations, tessellations, area of parallelograms, triangles, and trapezoids, circumference and area of circles, area of complex figures, three-dimensional figures, volume of prisms and cylinders, volume of pyramids and cones, surface area of prisms and cylinders, surface area of pyramids and cones, precision and significant details,
4. Probability and Statistics: probability of simple events, counting outcomes, permutations, combinations, probability of compound events, experimental probability, using sampling to predict, histograms, circle graphs, choosing an appropriate display, measures of central tendency, measures of variation, box-and-whisker plots, misleading graphs and statistics, matrices
5. Algebra – Linear and Nonlinear Functions: simplifying algebraic expressions, solving two-step equations, writing two-step equations, solving equations with variables on each side, inequalities, solving inequalities by adding or subtracting, solving inequalities by multiplying or dividing, sequences, functions, graphing linear functions, slope formula, slope-intercept form, scatter plots, graphing systems of equations, graphing linear inequalities, linear and nonlinear functions, graphing quadratic functions, simplifying polynomials, adding polynomials, subtracting polynomials, multiplying and dividing polynomials

The pre-Algebra eighth grade students concentrate on learning skills and concepts in algebra, such as the following:

1. Tools of Algebra: using a problem solving plan, numbers and expressions, variables and expressions, properties, variables and equations, ordered pairs and relations, scatter plots, integers and absolute value, adding integers, subtracting integers, multiplying integers, dividing integers, the coordinate system, distributive property, simplifying Algebraic expressions, solving equations by adding or subtracting, solving equations by multiplying or dividing, solving two-step equations, writing two-step equations, using formulas
2. Factors and Fractions: factors and monomials, powers and exponents, prime factorization, greatest common factor (GCF), simplifying Algebraic fractions, multiplying and dividing monomials, negative exponents, scientific notation, writing fractions as decimals, rational numbers, multiplying rational numbers, dividing rational numbers, adding and subtracting like fractions, least common multiple, adding and subtracting unlike fractions, analyzing data, measures of

central tendency, solving equations with rational numbers, arithmetic and geometric sequences, Fibonacci sequence, ratios and rates, using proportions, scale drawings and models, fractions, decimals and percents, using the percent proportion, finding percents mentally, using percent equations, percentage of change, probability and predictions

3. Linear Equations, Inequalities and Functions: solving equations with variables on each side, solving equations with grouping symbols, inequalities, solving inequalities by adding or subtracting, solving inequalities by multiplying or dividing, solving multi-step inequalities, input & output, functions, tables, linear equations in two variables, graphing linear equations using intercepts, slope, rate of change, slope-intercept form, writing linear equations, best-fit lines, solving systems of equations, graphing inequalities
4. Applying Algebra to Geometry: squares and square roots, the real number system, angles, triangles, Pythagorean Theorem, the distance and midpoint formulas, similar triangles and indirect measurement, sine, cosine, and tangent ratios, line and angle relationships, congruent triangles, transformations on the coordinate plane, quadrilaterals, parallelograms, triangles, and trapezoids, polygons, circumference and area-circles, area-irregular figures, three-dimensional figures, volume of prisms, cylinder, pyramids and cones, surface area of prisms, cylinders, pyramids and cones, similar solids, precision and significant digits
5. Extending Algebra to Statistics and Polynomials: stem-and-leaf plots, measures of variation, box-and-whiskers plots, histograms, misleading statistics, counting outcomes, permutations and combinations, odds, probability of compound events, polynomials, adding polynomials, multiplying a polynomial by a monomial, linear and nonlinear functions, graphing quadratic and cube functions