Fifth-Grade Math Curriculum

The students will primarily use *Fifth-Grade Eureka Math: Great Minds* and supplemental resources to build fact fluency and logic, such as *Simplified Math, Prodigy,* and *Reflex Math*. The fifth-grade math objectives are developing whole-number, fraction, and decimal arithmetic fluency, reasoning, and multi-step problem solving, which will help students complete pre-algebra in later years. Therefore, fifth-grade math builds foundational skills and math logic. The following skills are covered in *Eureka Math*:

- Place value:
  - Moving whole numbers and decimals by powers of ten
  - Introduction to exponents
  - Writing numbers in words
  - Writing decimals in expanded form using exponents (example: $\# \ x \ 10^{\#}$) and unit fractions (example: $\# \ x \ \frac{\#}{10}, \ etc.$)
  - Understanding and modeling fraction place value using number lines or models
  - Comparing numbers using <, >, =
  - Rounding
- Decimal arithmetic:
  - Adding and subtracting decimals
  - Single, double, and then multi-digit multiplication and division with whole numbers and decimals
- Fraction arithmetic:
  - Equivalent fractions
  - Decomposing fractions (example: 3/8 = 1/8 + 2/8)
  - Comparing fractions and mixed numbers
  - Converting mixed numbers into improper fractions and vice versa
  - Adding and subtracting fractions with like and unlike denominators
  - Adding and subtracting mixed numbers with like and unlike denominators
  - Interpreting fractions as division problems
  - Multiplying fractions
  - Dividing fractions
  - Introduction to scaling (example: the model is ½ the size of the original)
  - Convert fractions to decimals and decimals to fractions
- Unit conversion, comparison, and arithmetic
  - Metric unit conversions using powers of ten
  - Converting units using decimal multiplication
  - Converting smaller units into fractions of a larger unit (example: 6 inches = ½ foot)
  - Adding as subtracting numbers with unlike units (example: L – mL)
  - Measuring using different units and observing how unit size impacts the accuracy of measurement
  - Measuring with square or cubic units including $mL \ and \ cm^2$

- Adding and multiplying with volume and area
    - Introduction to diagraming and calculating area and volume (rectangles and rectangular prisms)
    - Diagramming and calculating the area and volume of complex figures made of several rectangles or rectangular prisms
    - Introduction to nets
- Introduction to coordinate planes
    - Locating points and graphing on a number line
    - Locating points and graphing on a coordinate plane using ordered pairs
- Multi-step problem solving and logic
    - Introduction to using parenthesis in multi-step operations, the associative property, and the distributive property
    - Practice solving multi-step word problems
    - Practice writing word problems to fit a mathematical expression
    - Use estimation and math logic to test if an answer is reasonable
    - Using models and illustrations to help solve complex word problems.