



Falcon International School

Course Description

Fourth and Fifth Grade

Mathematics

In fourth and fifth grade, students use a variety of strategies to solve addition, subtraction, multiplication and division facts using 2-3 digit numbers. They deepen their understanding of problem solving skills while studying plane and solid figures, measurement, fractions, graphing and place value. Students engage in hands-on activities to expand their math vocabulary, reasoning and analyzing skills and their ability to study relationships in concrete ways. They use various learning modalities via manipulatives, technology and math games.

After successfully completing this course the student will be able to ...

- Understand how to identify the value of a digit to the billions place
- Understand how I can compare and order whole numbers
- Understand how to compare and order whole numbers and decimals
- Understand how to add and subtract whole numbers and decimals
- Understand what steps are needed to multiply/divide numbers and decimals
- Understand the meaning of prime and composite numbers
- Understand fractions and mixed numbers
- Understand symmetry, geometry and measurement
- Understand how to organize information on a graph

Course Content

Use Whole Numbers and Decimals

- Place value of whole numbers (millions and billions)
- Compare and order
- Decompose numbers

Place Value of Decimals

- Decimal place value
- Equivalent decimals
- Compare and order decimals
- Negative numbers

Add and Subtract Whole Numbers and Decimals

- Rounding whole numbers
- Rounding decimals
- Estimate sums and differences
- Add and subtract whole numbers
- Add and subtract decimals

Multiply Whole Numbers and Decimals

- Patterns in multiplication

- Mult. By 1-digit
- Mult by 2-digits
- Patterns in decimals (products and factors)
- Decimal multiplication (placing the decimal)

Division of Whole Number and Decimals

- Divide by 1 digit divisors
- Divide by 2 digit divisors
- Divide decimals by whole numbers

Factors and Multiples

- Divisibility
- Greatest Common Factor
- Multiples and Least Common Multiple

Exponents and Prime Numbers

- Exponents
- Expanded form
- Prime and Composite Numbers
- Prime Factors and Exponents

Fraction Concepts

- Equivalent fractions
- Simplest forms
- Mixed Numbers
- Compare and Order

Add and Subtract Fractions

- Add and subtract like/unlike fractions
- Estimate sums and differences
- Common Denominators
- Least Common Denominator

Add and Subtract Mixed Numbers

- Add mixed numbers
- Subtract MN with renaming

Multiply Fractions

- Multiply a fraction by a fraction
- Multiple fractions and whole numbers/mixed numbers
- Multiply fractions with mixed numbers

Divide Fractions

- Reciprocals
- Divide whole numbers by fractions
- Divide fractions

Reinforcement games

- Tangram puzzles
- 4 corners
- Celebrity fraction puzzles
- Dice game

Geometric Figures

- Lines and Angles
- Measure and Draw Angles
- Angles and Polygons

- Circles
- Congruent and Similar Figures
- Symmetric Figures

Classify Plane and Solid Figures

- Triangles
- Quadrilaterals
- Transformations and Tessellations
- Solid Figures

Integers

- Understanding integers
- Compare and order integers
- Addition and Subtraction

Geometry and the Coordinate Plane

- Graph relationships
- Graph integers
- Transformation

Measurement

Customary and Metric Systems

- Customary length
- Metric length
- Capacity and weight
- Capacity and mass (science link)
- Time and temperature

Perimeter

- Estimate perimeter
- Find perimeter
- Circumference

Area

- Estimate area
- Area of squares and rectangles, triangles, parallelograms
- Relate perimeter and area

Surface Area and Volume

- Nets for solid figures
- Surface area
- Estimate and find volume

Measure perimeter, area, and volume

Data and Graphing

- Collect and organize data
- Find the mean
- Median and mode
- Make a graph
- Analyze graph
- Choose a reasonable scale
- Graph ordered pairs
- Make line graphs and histograms
- Choose an appropriate graph

