

Focus on Middle School Foundations I

This course covers the topics shown below.

Students navigate learning paths based on their level of readiness.

Institutional users may customize the scope and sequence to meet curricular needs.

Curriculum (108 topics + 176 additional topics)

- Whole Numbers (60 topics)
 - Addition and Subtraction (18 topics)
 - Adding 2-digit numbers without regrouping
 - Adding a 2-digit number and a 1-digit number with regrouping
 - Adding 2-digit numbers with regrouping a ten
 - Adding multiples of 10 and 100
 - Adding 2-digit numbers with regrouping a hundred
 - Adding 3 or 4 numbers with two-digits with regrouping
 - Adding 3-digit numbers with regrouping
 - Adding 3 numbers with two, three, and four-digits
 - Subtraction of 2-digit numbers without regrouping
 - Subtracting multiples of 10 and 100
 - Subtraction involving 3-digit numbers without regrouping
 - Subtraction of 2-digit numbers with regrouping
 - Subtraction with multiple regrouping steps involving 3-digit numbers
 - Subtraction with multiple regrouping steps involving 4-digit numbers
 - Subtraction and regrouping with zeros
 - Word problem with addition or subtraction of whole numbers
 - Perimeter of a polygon
 - Perimeter of a square or a rectangle
 - Multiplication (15 topics)
 - Multiplying a 1-digit number by 6, 7, 8, or 9
 - Using multiplication to find the number of squares
 - Multiplying 2-digit and 1-digit numbers without regrouping
 - Understanding multiplication of a 1-digit number by a multiple of 10
 - Multiplication by 10, 100, and 1000
 - Multiplication with trailing zeros: Problem type 1
 - Multiplying 2-digit and 1-digit numbers with regrouping: Problem type 2
 - Multiplying multi-digit and 1-digit numbers with regrouping
 - Finding the area of a rectangle on a grid
 - Area of a rectangle with two-digit by one-digit side lengths
 - Introduction to multiplication of large numbers
 - Multiplication of large numbers
 - Multiplication with trailing zeros: Problem type 2
 - Finding multiples of 2, 5, or 10
 - Finding multiples of 3, 4, 6, 7, 8, or 9
 - Division (13 topics)
 - Completing division facts: Divisors 6-9
 - Division of whole numbers given in fractional form
 - Division without regrouping
 - Division with regrouping: 1-digit divisor, 2-digit dividend
 - Quotient with remainder: 1-digit divisor, 2-digit dividend
 - Whole number division: 2-digit by 2-digit, no remainder
 - Solving a word problem with multiplication or division: Up to 2-digit numbers
 - Word problem with multiplication and addition or subtraction of whole numbers
 - Word problem on unit rates associated with ratios of whole numbers: Whole number answers
 - Division with trailing zeros: Problem type 1
 - Division with regrouping: 1-digit divisor, 3-digit or 4-digit dividend
 - Whole number division: 3-digit by 2-digit, no remainder
 - Division with no remainder and a two-digit divisor: Problem type 2
 - Ordering and Estimation (4 topics)
 - Introduction to inequalities
 - Ordering large numbers
 - Rounding to tens or hundreds
 - Rounding to hundreds or thousands
 - Exponents and Order of Operations (4 topics)
 - Writing expressions using exponents
 - Introduction to exponents

- Introduction to parentheses
- Introduction to order of operations
- Evaluating and Writing Expressions (3 topics)
 - Evaluating an algebraic expression: Whole number addition or subtraction
 - Evaluating an algebraic expression: Whole number multiplication or division
 - Evaluating an algebraic expression: Whole numbers with two operations
- One-Step Equations (3 topics)
 - Additive property of equality with whole numbers
 - Introduction to solving an equation with multiplication or division
 - Writing an equation and solving a multiplicative comparison word problem
- Decimals (19 topics)
 - Relating Fractions and Decimals (2 topics)
 - Understanding non-unit fractions
 - Converting a fraction with a denominator of 10 or 100 to a decimal
 - Addition and Subtraction (9 topics)
 - Addition of decimals: Vertically aligned
 - Decimal addition with 2 numbers
 - Decimal addition with 3 numbers
 - Subtraction of aligned decimals
 - Decimal subtraction: Basic
 - Decimal subtraction: Advanced
 - Rounding decimals
 - Addition with money
 - Subtraction with money
 - Multiplication (6 topics)
 - Multiplication of a decimal by a power of ten
 - Multiplying a decimal less than 1 by a whole number
 - Multiplying a decimal by a whole number
 - Multiplying decimals less than 1: Problem type 1
 - Decimal multiplication: Problem type 1
 - Word problem with multiplication of a decimal and a whole number
 - Division (2 topics)
 - Division of a decimal by a power of ten
 - Division of a decimal by a whole number
- Fractions (18 topics)
 - Equivalent Fractions (6 topics)
 - Understanding equivalent fractions with shapes containing up to 8 equal parts
 - Conversions involving division in fractional form and whole numbers
 - Introduction to finding equivalent fractions: Multiplying
 - Equivalent fractions
 - Introduction to simplifying a fraction
 - Simplifying a fraction
 - Plotting and Ordering Fractions (2 topics)
 - Identifying a fraction on a number line
 - Plotting fractions on a number line
 - Mixed Numbers and Improper Fractions (2 topics)
 - Writing an improper fraction as a mixed number
 - Writing a mixed number as an improper fraction
 - Addition and Subtraction with Fractions (2 topics)
 - Addition or subtraction of fractions with the same denominator and simplification
 - Addition or subtraction of fractions with different denominators
 - Multiplication with Fractions (5 topics)
 - Product of a unit fraction and a whole number
 - Product of a fraction and a whole number: Problem type 1
 - Word problem involving multiplying a fraction and a whole number
 - Introduction to fraction multiplication
 - Fraction multiplication
 - Division with Fractions (1 topics)
 - Division involving a whole number and a unit fraction
- Measurement (1 topics)

- U.S. Customary Units of Measurement (1 topics)
 - U.S. Customary length conversion with whole number values
- Geometry (3 topics)
 - Functions and Graphs (3 topics)
 - Function tables with one-step rules
 - Reading a point in quadrant 1
 - Plotting a point in quadrant 1
- Perimeter, Area, and Volume (7 topics)
 - Perimeter (1 topics)
 - Finding the missing length in a figure
 - Area of Rectangles (1 topics)
 - Solving a two-step word problem involving the area of a rectangle
 - Area of Composite Figures (3 topics)
 - Finding the area of a rectilinear figure on a grid
 - Introduction to area of a piecewise rectangular shape
 - Area of a piecewise rectangular figure
 - Volume of Rectangular Prisms (2 topics)
 - Volume of a rectangular prism made of unit cubes
 - Volume of a rectangular prism
- Other Topics Available(*) (176 additional topics)
 - Whole Numbers (50 topics)
 - One-digit addition with regrouping
 - Addition of 3 or 4 one-digit numbers
 - Subtracting a 1-digit number from a 2-digit number
 - Fact families for addition and subtraction
 - Perimeter of a rectangle on a grid
 - Rewriting a repeated addition as a multiplication sentence
 - Finding the area of a rectangle with 1-digit side lengths
 - Introduction to multiplication using an area model
 - Multiplying a multi-digit and a 1-digit number using an area model
 - Creating related multiplication and division facts
 - Quotient with remainder: 1-digit divisor, 3-digit or 4-digit dividend
 - Division involving quotients with intermediate zeros: Problem type 1
 - Division involving quotients with intermediate zeros: Problem type 2
 - Division with remainder involving quotients with intermediate zeros: Problem type 1
 - Division with trailing zeros: Problem type 2
 - Division with remainder and a two-digit divisor: Problem type 1
 - Division with remainder and a two-digit divisor: Problem type 2
 - Word problem on quotient and remainder
 - Word problem with division of whole numbers and rounding: Problem type 1
 - Word problem with division of whole numbers and rounding: Problem type 2
 - Comparing a numerical expression with a number
 - Estimating a sum of whole numbers: Problem type 1
 - Estimating a sum of whole numbers: Problem type 2
 - Estimating a difference of whole numbers: Problem type 1
 - Estimating a difference of whole numbers: Problem type 2
 - Estimating a product
 - Estimating a quotient
 - Power of 10: Positive exponent
 - Order of operations with whole numbers
 - Order of operations with whole numbers and grouping symbols
 - Order of operations with whole numbers and exponents: Basic
 - Even and odd numbers
 - Factors
 - Prime numbers
 - Prime factorization
 - Greatest common factor of 2 numbers
 - Least common multiple of 2 numbers
 - Word problem involving the least common multiple of 2 numbers
 - Evaluating a formula
 - Evaluating an algebraic expression: Whole numbers with one operation and an exponent
 - Writing a one-step expression for a real-world situation
 - Translating a phrase into a one-step expression
 - Translating a phrase into a two-step expression
 - Identifying solutions to a one-step linear equation: Problem type 1

- Identifying solutions to a one-step linear equation: Problem type 2
- Multiplicative property of equality with whole numbers
- Translating a sentence into a one-step equation
- Introduction to properties of addition
- Introduction to properties of multiplication
- Introduction to the distributive property
- Decimals (27 topics)
 - Decimal place value: Tenths and hundredths
 - Reading decimal position on a number line: Tenths
 - Reading decimal position on a number line: Hundredths
 - Introduction to ordering decimals
 - Ordering decimals
 - Writing a decimal and a fraction for a shaded region
 - Converting a fraction with a denominator of 100 or 1000 to a decimal
 - Converting a decimal to a proper fraction without simplifying: Basic
 - Converting a decimal to a proper fraction without simplifying: Advanced
 - Decimal addition and subtraction with 3 or more numbers
 - Estimating a decimal sum or difference
 - Word problem with addition or subtraction of 2 decimals
 - Word problem with addition of 3 or 4 decimals and whole numbers
 - Word problem with subtraction of a whole number and a decimal: Regrouping with zeros
 - Decimal multiplication: Problem type 2
 - Multiplication of a decimal by a power of 0.1
 - Multiplying decimals less than 1: Problem type 2
 - Estimating a product of decimals
 - Word problem with multiple decimal operations: Problem type 1
 - Word problem with multiplication of two decimals
 - Whole number division with decimal answers
 - Division of a decimal by a 1-digit decimal: Problem type 1
 - Division of a decimal by a 2-digit decimal
 - Average of two numbers
 - Word problem with division of a decimal and a whole number
 - Word problem with multiple decimal operations: Problem type 2
 - Word problem with division of two decimals
- Fractions (52 topics)
 - Understanding equivalent fractions: Problem type 2
 - Creating a model and completing a fraction to show equivalent fractions
 - Introduction to finding equivalent fractions: Dividing
 - Comparing fractions with the same denominator
 - Comparing fractions with the same numerator
 - Comparing fractions by finding a common denominator
 - Writing a mixed number and an improper fraction for a shaded region
 - Position of mixed numbers on a number line
 - Plotting mixed numbers on a number line
 - Converting a proper fraction with a denominator of 2, 4, or 5 to a decimal
 - Converting a mixed number with a denominator of 2, 4, or 5 to a decimal
 - Converting a fraction to a terminating decimal: Basic
 - Converting a fraction to a terminating decimal: Advanced
 - Converting a fraction to a repeating decimal: Basic
 - Using a calculator to convert a fraction to a rounded decimal
 - Converting a mixed number to a terminating decimal: Basic
 - Converting a decimal to a proper fraction in simplest form: Basic
 - Converting a decimal to a proper fraction in simplest form: Advanced
 - Converting a decimal to a mixed number and an improper fraction without simplifying
 - Converting a decimal to a mixed number and an improper fraction in simplest form: Basic
 - Ordering fractions and decimals
 - Addition or subtraction of fractions with the same denominator
 - Word problem involving addition or subtraction of fractions with the same denominator
 - Finding the LCD of two fractions
 - Writing unit fractions with a common denominator to add or subtract
 - Writing fractions with a common denominator to add or subtract
 - Word problem involving addition or subtraction of fractions with different denominators
 - Addition or subtraction of mixed numbers with the same denominator
 - Addition of mixed numbers with the same denominator and renaming: Problem type 1
 - Addition of mixed numbers with the same denominator and renaming: Problem type 2
 - Subtraction of mixed numbers with the same denominator and renaming: Problem type 1
 - Subtraction of mixed numbers with the same denominator and renaming: Problem type 2
 - Addition or subtraction of mixed numbers with different denominators without renaming
 - Addition of mixed numbers with different denominators and renaming
 - Subtraction of mixed numbers with different denominators and renaming
 - Word problem involving addition or subtraction of mixed numbers with different denominators
 - Product of a fraction and a whole number: Problem type 2

- Modeling multiplication of proper fractions
- Word problem involving fractions and multiplication
- Determining if a quantity is increased or decreased when multiplied by a fraction
- The reciprocal of a number
- Division involving a whole number and a fraction
- Fraction division
- Modeling division of a whole number by a fraction
- Word problem involving fractions and division
- Multiplying mixed numbers: Problem type 1
- Multiplying mixed numbers: Problem type 2
- Multiplying a mixed number and a whole number: Problem type 1
- Multiplying a mixed number and a whole number: Problem type 2
- Division with a mixed number and a whole number
- Mixed number division
- Word problem involving multiplication or division with mixed numbers
- Measurement (11 topics)
 - Choosing U.S. Customary measurement units
 - Conversions involving measurements in feet and inches
 - U.S. Customary volume conversion with whole number values
 - U.S. Customary weight conversions with whole number values
 - U.S. Customary unit conversion with whole number values: Two-step conversion
 - U.S. Customary unit conversion with mixed number values: One-step conversion
 - Choosing metric measurement units
 - Metric distance conversion with whole number values
 - Metric distance conversion with decimal values
 - Metric mass or volume conversion with whole numbers
 - Time unit conversion with whole number values
- Geometry (11 topics)
 - Identifying parallel and perpendicular lines
 - Acute, obtuse, and right angles
 - Measuring an angle with the protractor
 - Drawing an angle with the protractor
 - Introduction to angle addition
 - Finding an angle measure in a figure with a right or straight angle
 - Naming polygons
 - Function tables with two-step rules
 - Describing an increasing or decreasing pattern from a table of values
 - Writing a function rule given a table of ordered pairs: One-step rules
 - Graphing a line in quadrant 1
- Perimeter, Area, and Volume (9 topics)
 - Finding an unknown side length of a polygon given the perimeter
 - Area of a rectangle with fractional side lengths
 - Area of a parallelogram
 - Finding the area of a right triangle on a grid
 - Area of a triangle
 - Word problem on finding the area of a piecewise rectangular figure
 - Nets of solids
 - Writing equivalent expressions for the volume of a rectangular prism
 - Word problem involving the volume of a rectangular prism
- Data and Probability (16 topics)
 - Interpreting a tally table
 - Representing data on a dot plot
 - Representing data on a bar graph
 - Interpreting data in a bar graph with up to six categories
 - Interpreting a stem-and-leaf plot
 - Mean of a data set
 - Mean and median of a data set
 - Mode of a data set
 - Range of a data set
 - Finding the mode and range from a dot plot (line plot)
 - Finding outliers in a data set
 - Classifying likelihood
 - Introduction to the probability of an event
 - Probability involving one die or choosing from n distinct objects
 - Probability involving choosing from objects that are not distinct
 - Understanding likelihood

***Other Topics Available** By default, these topics are NOT included in the course, but can be added using the content editor in the Teacher Module.