Fundamental Math offers a structured remediation solution based on the NCTM Curricular Focal Points and is designed to expedite student progress through 3rd- to 5th-grade skills. The course is appropriate for use as remediation for students in grades 6 to12.

Fundamental Math empowers students to progress at their optimum pace through over 80 semester hours of interactive instruction and assessment spanning 3rd- to5th-grade math skills. Carefully paced, guided instruction is accompanied by interactive practice that is engaging and accessible. Formative assessments help students to understand areas of weakness and improve performance, while summative assessments chart progress and skill development. Early in the course, students develop general strategies to hone their problem-solving skills. Subsequent units provide a problem-solving strand that asks students to practice applying specific math skills to a variety of real-world contexts.

The content is based on the National Council of Teachers of Math (NCTM) April 20 0 6 publication, Curricular Focal Points for Prekindergarten through Grade 8 Mathematics: A Quest for Coherence and is aligned to state standards.

UNIT 1: BASIC NUMBER CONCEPTS

- Lesson 1: Whole Numbers
- Lesson 2: Reading and Writing Whole Numbers
- Lesson 3: Odd and Even Numbers
- Lesson 4: Using Odd and Even Numbers
- Lesson 5: Counting by 2's, 3's, 4's, 5's and 10's
- Lesson 6: Number Patterns
- Lesson 7: Putting Numbers in Order
- Lesson 8: Identifying Greater than and Less than
- Lesson 9: Introduction to Number Lines and Inequalities
- Lesson 10: Place Value Through a Thousand
- Lesson 11: Place Value Beyond a Thousand
- Lesson 12: Standard, Expanded and Word Form
- Lesson 13: Ordinal Numbers
- Lesson 14: Wrap-Up
- Lesson 15: Diagnostic

UNIT 2: ADVANCED NUMBER CONCEPTS

- Lesson 1: Properties of Addition
- Lesson 2: Properties of Multiplication
- Lesson 3: Rounding to the 10's, 100's and 1,000's
- Lesson 4: Rounding to the 10,000's, 100,000's and 1,000,000's
- Lesson 5: Grouping with Parentheses
- Lesson 6: Rounding with a Number Line
- Lesson 7: Prime Numbers
- Lesson 8: Inverse Operations
- Lesson 9: Exponents
- Lesson 10: Square Numbers
- Lesson 11: Roman Numerals
- Lesson 12: Negative Numbers
- Lesson 13: Wrap-Up
- Lesson 14: Diagnostic

UNIT 3: ADDITION AND SUBTRACTION

- Lesson 1: Adding Whole Numbers
- Lesson 2: Addition Facts with Table
- Lesson 3: Column Addition
- Lesson 4: Addition with Regrouping
- Lesson 5: Horizontal Addition
- Lesson 6: Subtracting Whole Numbers
- Lesson 7: Subtraction Facts with Table
- Lesson 8: Column Subtraction
- Lesson 9: Subtraction Regrouping for Two-Digit Numbers
- Lesson 10: Subtraction Regrouping for Three-Digit Numbers
- Lesson 11: Adding and Subtracting Zero
- Lesson 12: Addition and Subtraction Fact Families
- Lesson 13: Estimating Sums
- Lesson 14: Estimating Differences
- Lesson 15: Addition and Subtraction with Variables
- Lesson 16: Wrap-Up
- Lesson 17: Diagnostic

UNIT 4: MULTIPLICATION AND DIVISION

- Lesson 1: Introduction to Multiplication
- Lesson 2: Multiplying by 0 and 1
- Lesson 3: Multiplication Arrays
- Lesson 4: Multiplication Facts with Table
- Lesson 5: Two-Digit by One-Digit Multiplication
- Lesson 6: Two-Digit by Two-Digit Multiplication
- Lesson 7: Three-Digit by One-Digit Multiplication
- Lesson 8: Three-Digit Multiplication
- Lesson 9: Multiplying Three or More Factors
- Lesson 10: Introduction to Division
- Lesson 11: Division with 0 and 1
- Lesson 12: Division Facts with Table
- Lesson 13: Understanding Remainders
- Lesson 14: Introduction to Long Division
- Lesson 15: Long Division with Remainders
- Lesson 16: Long Division with Two-Digit Divisors
- Lesson 17: Long Division with Three-Digit Divisors
- Lesson 18: Checking Division
- Lesson 19: Wrap-Up
- Lesson 20: Diagnostic

UNIT 5: MULTIPLICATION AND DIVISION CONCEPTS

- Lesson 1: Factors
- Lesson 2: 2, 4 and 8 as Factors
- Lesson 3: 3, 6 and 9 as Factors
- Lesson 4: 5 and 10 as Factors
- Lesson 5: Common Factors
- Lesson 6: Prime Factorization
- Lesson 7: Multiples
- Lesson 8: Multiplying by 10 and 100
- Lesson 9: Dividing by 10 and 100
- Lesson 10: Powers of Ten

- Lesson 11: Multiplying and Dividing by Powers of Ten
- Lesson 12: Estimating Products
- Lesson 13: Estimating Quotients
- Lesson 14: Multiplication and Division Fact Families
- Lesson 15: Multiplication and Division with Variables
- Lesson 16: Wrap-Up
- Lesson 17: Diagnostic

UNIT 6: FRACTIONS

- Lesson 1: The Meaning of Fractions
- Lesson 2: The Meaning of Fractions: Part of a Group
- Lesson 3: Fractions with Zeros
- Lesson 4: Estimating Fractions
- Lesson 5: Locating Fractions on a Number Line
- Lesson 6: Comparing Like Fractions
- Lesson 7: Equivalent Fractions
- Lesson 8: Simplifying Fractions
- Lesson 9: Finding Common Denominators
- Lesson 10: Comparing Unlike Fractions
- Lesson 11: Fractions of Whole Numbers
- Lesson 12: Mixed Numbers and Improper Fractions
- Lesson 13: Comparing and Ordering Mixed Numbers
- Lesson 14: Converting Mixed Numbers and Improper Fractions
- Lesson 15: Wrap-Up
- Lesson 16: Diagnostic

UNIT 7: SEMESTER WRAP-UP

- Lesson 1: Preparing for the Semester Exam

UNIT 8: OPERATIONS WITH FRACTIONS

- Lesson 1: Word Problems With Fractions
- Lesson 2: Adding and Subtracting Like Fractions
- Lesson 3: Adding and Subtracting Like Fractions in Word Problems
- Lesson 4: Adding and Subtracting Unlike Fractions
- Lesson 5: Adding and Subtracting Unlike Fractions in Word Problems
- Lesson 6: Adding Mixed Numbers
- Lesson 7: Subtracting Mixed Numbers
- Lesson 8: Adding and Subtracting Fractions and Whole Numbers
- Lesson 9: Multiplying Fractions
- Lesson 10: Multiplying Fractions in Word Problems
- Lesson 11: Multiplying Mixed Numbers
- Lesson 12: Wrap-Up
- Lesson 13: Diagnostic

UNIT 9: DECIMALS, PERCENTS AND RATIOS

- Lesson 1: The Meaning of Decimals
- Lesson 2: Place Value with Decimals
- Lesson 3: Locating Decimals on a Number Line
- Lesson 4: Comparing and Ordering Decimals
- Lesson 5: Rounding with Decimals
- Lesson 6: The Meaning of Percent
- Lesson 7: Estimating Percent
- Lesson 8: Working with Percents

- Lesson 9: Relating Fractions, Decimals and Percents
- Lesson 10: Common Fractions, Decimals and Percents
- Lesson 11: Introduction to Ratios
- Lesson 12: Wrap-Up
- Lesson 13: Diagnostic

UNIT 10: OPERATIONS WITH DECIMALS

- Lesson 1: Adding and Subtracting Decimals
- Lesson 2: Decimals and Money
- Lesson 3: Multiplying Decimals
- Lesson 4: Multiplying Decimals and Adding Zeros
- Lesson 5: Repeating Decimals
- Lesson 6: Dividing Decimals
- Lesson 7: Adding and Subtracting Decimals in Word Problems
- Lesson 8: Word Problems with Decimals - All Operations
- Lesson 9: Estimating Sums and Differences with Decimals
- Lesson 10: Estimating Products and Quotients of Decimals
- Lesson 11: Wrap-Up
- Lesson 12: Diagnostic

UNIT 11: PROBLEM SOLVING

- Lesson 1: Building Basic Word Problems
- Lesson 2: A Four-Step Approach
- Lesson 3: Too Much or Too Little Information
- Lesson 4: Choosing the Operation in Word Problems
- Lesson 5: Draw a Diagram
- Lesson 6: Use a Model or Act it Out
- Lesson 7: Make a List
- Lesson 8: Build a Chart and Find a Pattern
- Lesson 9: Guess and Check
- Lesson 10: Work Backward
- Lesson 11: Building Equations
- Lesson 12: Deductive Reasoning
- Lesson 13: Inductive Reasoning
- Lesson 14: Logic Puzzles
- Lesson 15: Wrap-Up
- Lesson 16: Diagnostic

UNIT 12: BASIC CONCEPTS IN GEOMETRY

- Lesson 1: Points, Segments, Rays and Lines
- Lesson 2: Identifying Parts of Angles
- Lesson 3: Classifying Angles
- Lesson 4: Measuring Angles with a Protractor
- Lesson 5: Parallel, Intersecting and Perpendicular Paths
- Lesson 6: Open and Closed Figures
- Lesson 7: Identifying Polygons
- Lesson 8: Classifying Triangles
- Lesson 9: Classifying Quadrilaterals
- Lesson 10: Identifying Parts of Circles
- Lesson 11: Lines of Symmetry
- Lesson 12: Sliding, Turning and Flipping Shapes
- Lesson 13: Congruence and Similarity

- Lesson 14: Using Geometric Vocabulary
- Lesson 15: Wrap-Up
- Lesson 16: Diagnostic

UNIT 13: MEASURING SHAPES

- Lesson 1: Perimeter
- Lesson 2: Introduction to Area
- Lesson 3: Area of Rectangles and Squares
- Lesson 4: Area of Parallelograms
- Lesson 5: Area of Triangles
- Lesson 6: Introduction to Volume
- Lesson 7: Volume of Rectangular Solids
- Lesson 8: The Number Pi
- Lesson 9: Wrap-Up
- Lesson 10: Diagnostic

UNIT 14: SEMESTER WRAP-UP

- Lesson 1: Preparing for the Semester Exam