

Program Components

Introduction

This guide describes the program components available for the focusMATH intensive intervention program. focusMATH provides districts and schools with a flexible program to meet any instructional framework. This curriculum can be used in a variety of settings, including before- or after-school programs, summer school, pull-out or resource room instruction, or tutoring programs.

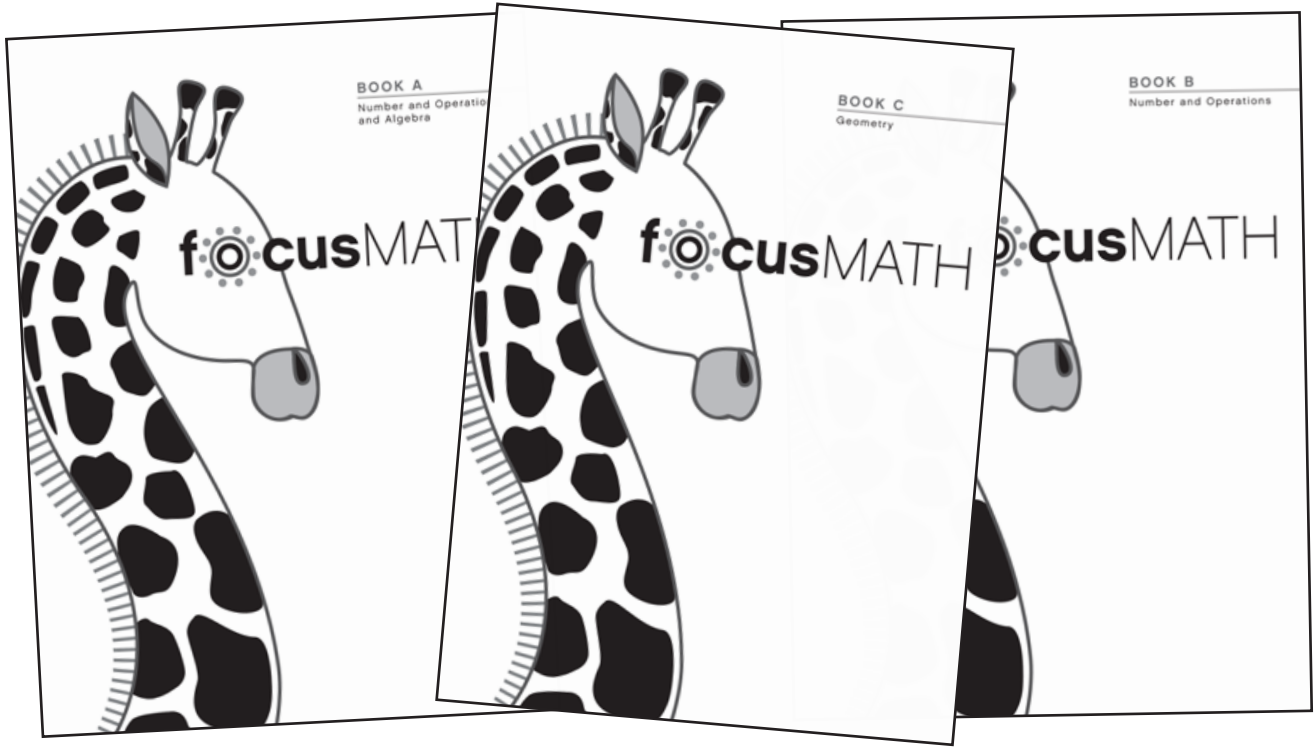
Table of Contents

All grade levels consist of units, and each unit is built around one of the National Council of Teachers of Mathematics (NCTM) Curriculum Focal Points. Lessons are organized by topic and can be covered in a single session, making the program ideal for pull-out, summer school, or after-school district models.

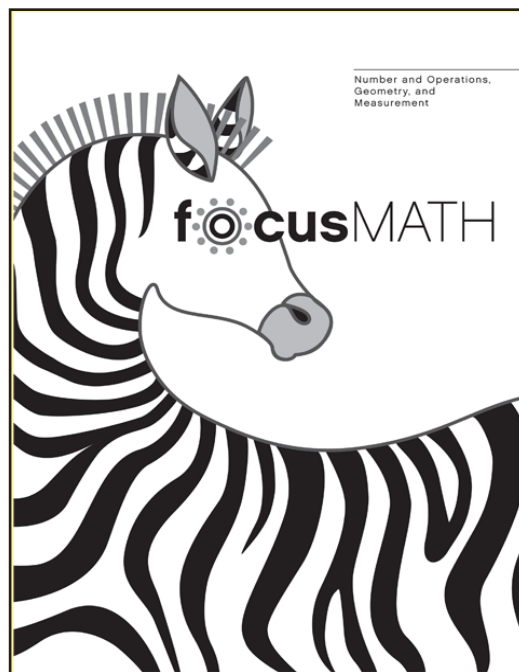
Table of Contents						
All grade levels consist of three units, each built around a specific Focal Point. Lessons are organized by topic and can be covered in a single session, making the program ideal for pull-out, summer, or after-school district models.						
Grade K (27 Lessons) Topic 1: Numbers to 10 Topic 2: Numbers to 20 Topic 3: Addition and Subtraction Topic 4: Shapes Topic 5: Comparing and Ordering Objects	Grade 1 Number and Operations and Algebra (27 Lessons) Topic 1: Addition Facts to 10 Topic 2: Addition Facts to 18 Topic 3: Subtraction Facts to 10 Topic 4: Subtraction Facts to 18 Number and Operations (23 Lessons) Topic 1: Numbers to 10 Topic 2: Numbers to 30 Topic 3: Numbers to 100 Geometry (9 Lessons) Topic 1: Properties of Shapes Topic 2: Composing and Decomposing Shapes	Grade 2 Number and Operations (30 Lessons) Topic 1: Numbers to 30 Topic 2: Numbers to 100 Topic 3: Numbers to 1,000 Number and Operations and Algebra (22 Lessons) Topic 1: Addition Facts Topic 2: Subtraction Facts Topic 3: Adding Two-Digit Numbers Topic 4: Subtracting Two-Digit Numbers Topic 5: Using Estimation and Mental Math Measurement (7 Lessons) Topic 1: Using Non-standard Units to Measure Length Topic 2: Using Standard Units to Measure Length	Grade 3 Number and Operations and Algebra (25 Lessons) Topic 1: Addition and Subtraction Topic 2: Multiplication Meaning and Facts Topic 3: Division Meanings and Facts Number and Operations (28 Lessons) Topic 1: Comparing and Ordering Whole Numbers Topic 2: Equal Parts Topic 3: Fraction Meanings and Concepts Topic 4: Fractions on the Number Line Topic 5: Comparing and Ordering Fractions Geometry (10 Lessons) Topic 1: Lines, Line Segments, and Angles Topic 2: Shapes Topic 3: Transformations, Congruence, and Symmetry	Grade 4 Number and Operations and Algebra (27 Lessons) Topic 1: Multiplication Meanings Topic 2: Multiplication Facts Topic 3: Multiplying with Whole Numbers Topic 4: Division Meaning and Facts Number and Operations (22 Lessons) Topic 1: Whole-Number Place Value Topic 2: Fraction Meanings and Concepts Topic 3: Decimal Meanings and Concepts Topic 4: Comparing and Ordering Decimals Measurement (20 Lessons) Topic 1: Multiplication Facts Topic 2: Multiplication Topic 3: Shapes Topic 4: Area	Grade 5 Number and Operations and Algebra (24 Lessons) Topic 1: Multiplication Facts Topic 2: Multiplying Whole Numbers Topic 3: Division Meanings and Facts Topic 4: Dividing Whole Numbers Topic 5: Dividing with Two-Digit Divisors Number and Operations (24 Lessons) Topic 1: Adding and Subtracting Whole Numbers Topic 2: Fractions and Mixed Numbers Topic 3: Adding and Subtracting Fractions and Mixed Numbers Topic 4: Decimal Meanings and Concepts Topic 5: Adding and Subtracting Decimals Geometry, Measurement, and Algebra (21 Lessons) Topic 1: Multiplication Topic 2: Shapes and Perimeter Topic 3: Area Topic 4: Solid Figures and Surface Area Topic 5: Solid Figures and Volume	Grade 6 Number and Operations 1 (24 Lessons) Topic 1: Multiplying and Dividing Whole Numbers Topic 2: Fractions and Mixed Numbers Topic 3: Multiplying and Dividing Fractions and Mixed Numbers Topic 4: Multiplying and Dividing Decimals Number and Operations 2 (20 Lessons) Topic 1: Multiplication and Division Topic 2: Fractions Topic 3: Ratios and Proportions Topic 4: Rates

Student Editions

In Grades 1–6, there are three consumable student workbooks for each grade. Each book concentrates on one NCTM Focal Point.



Kindergarten students work with only one workbook that addresses all three focal points for kindergarten.



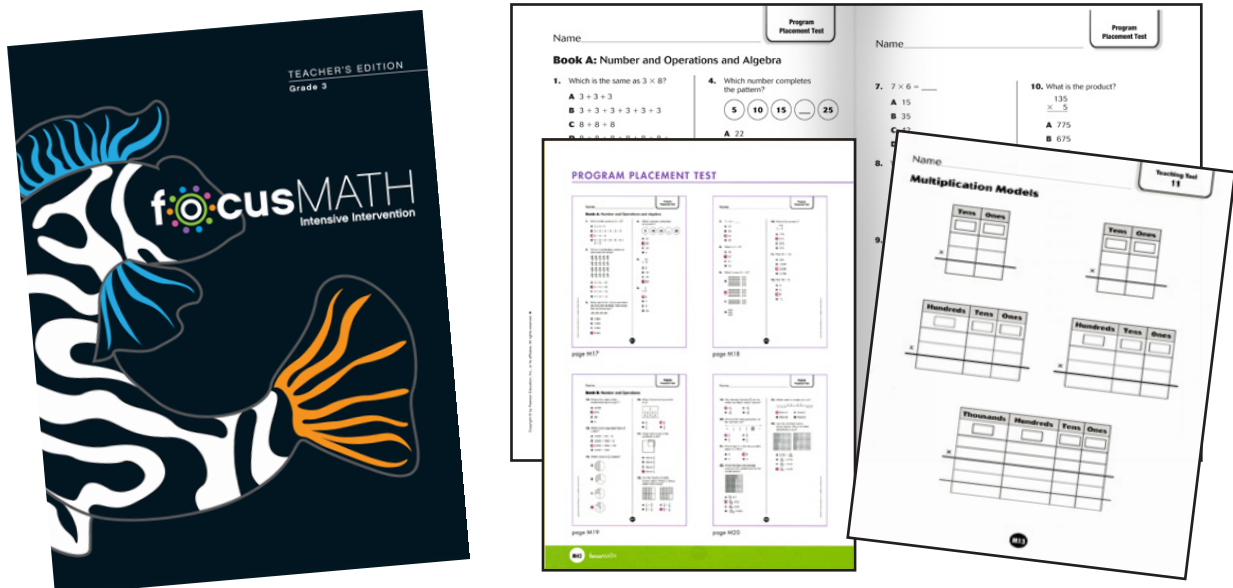
Student Manipulative Kits

Individual student manipulative kits provide hands-on learning materials that support in-depth conceptual development.

Kindergarten Manipulatives	snap cubes, two-color counters, pattern blocks
First Grade Manipulatives	snap cubes, two-color counters, base-10 blocks, pattern blocks, number tiles 0–9, attribute blocks
Second Grade Manipulatives	snap cubes, two-color counters, base-10 blocks, number tiles 0–9, attribute blocks
Third Grade Manipulatives	snap cubes, two-color counters, color tiles, fraction tiles, base-10 blocks, pattern blocks
Fourth Grade Manipulatives	snap cubes, two-color counters, color tiles, fraction tiles, base-10 blocks
Fifth Grade Manipulatives	two-color counters, fraction tiles, base-10 blocks
Sixth Grade Manipulatives	two-color counters, fraction tiles, base-10 blocks

Teacher Materials

There is one Teacher’s Edition per grade, which contains everything needed to teach focusMATH. The Teacher’s Edition provides support for all three student books as well as useful information to help deliver the program. It also contains the Teaching Tool Masters, Assessment Masters, and Answer Keys.



Overview of a Step

Each Teacher’s Edition is divided into smaller topics. Each topic reflects the foundational, prerequisite skills students need to be successful with each Focal Point.

Topic 2		Multiplication Facts
Step 2-1	Multiplying by 2 and 5	A8
Step 2-2	Multiplying by 10	A10
Step 2-3	Multiplying by 1 or 0	A12
Step 2-4	Multiplying by 3	A14
Step 2-5	Multiplying by 4	A16
Step 2-6	Multiplying by 6 or 7	A18
Step 2-7	Multiplying by 8	A20
Step 2-8	Multiplying by 9	A22

Each topic is divided into concise, daily Steps (or lessons) that focus on key skills. Each step is designed to be covered in a single 30- to 40-minute session. This allows for a systematic approach to instruction and enables students to experience daily success. If needed, a step can be covered over two days.

Step 2-1
Multiplying by 2 and 5

Objective Students will use skip counting to multiply by 2 and 5.

Vocabulary Skip counting, factor, multiple

Materials Number Lines (Teaching Tool 5)

Math Background

- Multiplication can be defined as repeated addition.
- Skip counting is counting by a number other than 1.
- Multiples of 2 and 5 can be found by skip counting.

1 Concept Development
Use with Teaching Tool 5.

Purpose
You have learned how to multiply using repeated addition. Today you will learn how to use skip counting to multiply by 2 and by 5. Knowing the multiplication facts of 2 and 5 will help you understand division by 2 and by 5 later in this book.

Focus the Problem
There are 9 pairs of shoes in the display window of the department store. What is the total number of shoes in the display window? Have students share their ideas.

Model
You can **skip count** on a number line to keep track of the total number of shoes. Draw a large number line on the board and label it from 0 to 20. Distribute copies of Number Lines (Teaching Tool 5) and have students do the same on the number line labeled “0”.

How many shoes are in one pair? (2 shoes) This can be shown on the number line with 2 hops from 0 to 2. The first hop always begins at 0. Hop with me on your number line to the number 2. Label the hop “+2”.

Guided Practice
Use with Exercises 1–10.

Exercise 4
Ask students to identify any patterns they see in the table of 2s facts.

Exercise 7
Error Intervention
If students have difficulty identifying the multiples of 5, **then** have them look for numbers that have either 0 or 5 in the ones place.

Exercise 10
Mention that patterns can be found throughout mathematics. Ask students to identify patterns that they have seen around their house, their classroom, or in games they play.

Use Vocabulary
To check understanding, ask a student to repeat and complete the sentence: **All multiples of 5 have the number 5 as a factor.**

Quick Check
Write 3×2 as a repeated addition problem and find the product. $(2 + 2 = 2 + 2 = 4)$

3 Independent Practice
Use with Exercises 11–23.

Remind students that all multiples of 2 and in 0, 2, 4, 6, or 8 and have 2 as a factor. Also, all multiples of 5 end in 0 or 5 and have 5 as a factor.

For problems such as 23 B, students can think about the doubles addition facts. Two groups of 8 can be represented as 2×8 or $8 + 8$.

For Exercises 11–22, encourage students to refer to the tables of 2s facts and 5s facts for help.

For Exercise 23, ask **What multiplication number sentence represents the total cost of the movie tickets?** ($3 \times 5 = 15$)

Review

This guide discussed the program components for focusMATH, including the Teacher’s Edition and Student Editions. For more information, please watch the other focusMATH tutorials on this Web site.