

# Table of Contents Booklet Grades K–6





*GO Math!* is the new Kindergarten – Grade 6 elementary mathematics program developed by Houghton Mifflin Harcourt to support the Common Core State Standards. With an emphasis on critical math areas, depth of understanding, interactive lessons, and great teacher and student resources, *GO Math!* is THE program for your classroom.

# KINDERGARTEN



#### **NUMBER AND OPERATIONS**

**Critical Area:** Representing, relating, and operating on whole numbers, initially with sets of objects

## Chapter 1 Represent, Count, and Write Numbers 0 to 5

- 1.1 Hands On: Model and Count 1 and 2
- 1.2 Count and Write 1 and 2
- 1.3 Hands On: Model and Count 3 and 4
- 1.4 Count and Write 3 and 4

#### **Mid-Chapter Checkpoint**

- 1.5 Hands On: Model and Count 5
- 1.6 Count and Write 5
- 1.7 Hands On: Algebra Ways to Make 5
- 1.8 Hands On: Count and Order to 5
- 1.9 Problem Solving: Understand 0
- 1.10 Count and Write 0
- Chapter 1 Review/Test

Performance Task

#### Chapter 2 Compare Numbers to 5

- 2.1 Hands On: Same Number
- 2.2 Hands On: Greater Than
- 2.3 Hands On: Less Than
- **Mid-Chapter Checkpoint**
- 2.4 Problem Solving: Compare by Matching Sets to 5
- 2.5 Compare by Counting Sets to 5
- Chapter 2 Review/Test

Performance Task

## Chapter 3 Represent, Count, and Write Numbers 6 to 9

- 3.1 Hands On: Model and Count 6
- 3.2 Count and Write 6
- 3.3 Hands On: Model and Count 7
- 3.4 Count and Write 7
- **Mid-Chapter Checkpoint**
- 3.5 Hands On: Model and Count 8
- 3.6 Count and Write 8
- 3.7 Hands On: Model and Count 9
- 3.8 Count and Write 9
- 3.9 Problem Solving: Numbers to 9

Chapter 3 Review/Test Performance Task

#### Chapter 4 Represent and Compare Numbers to 10

- 4.1 Hands On: Model and Count 10
- 4.2 Count and Write 10
- 4.3 Hands On: Algebra Ways to Make 10
- 4.4 Count and Order to 10

#### Mid-Chapter Checkpoint

- 4.5 Problem Solving: Compare by Matching Sets to 10
- 4.6 Compare by Counting Sets to 10
- 4.7 Compare Two Numbers
- Chapter 4 Review/Test
- Performance Task

#### **Chapter 5** Addition

- 5.1 Problem Solving: Act Out Addition Problems
- 5.2 Addition Expressions
- 5.3 More Addition Expressions
- 5.4 Hands On: Algebra: Model and Draw Addition Problems

#### Mid-Chapter Checkpoint

- 5.5 Algebra: Write Addition Sentences for 10
- 5.6 Algebra: Write Addition Sentences
- 5.7 Algebra: Write More Addition Sentences
- 5.8 Hands On: Algebra Number Pairs to 5
- 5.9 Hands On: Algebra Number Pairs for 6 and 7
- 5.10 Hands On: Algebra Number Pairs for 8
- 5.11 Hands On: Algebra Number Pairs for 9

5.12 Hands On: Algebra • Number Pairs for 10 Chapter 5 Review/Test

Performance Task

#### **Chapter 6 Subtraction**

- 6.1 Problem Solving: Act Out Subtraction Problems
- 6.2 Subtraction Expressions
- 6.3 More Subtraction Expressions
- 6.4 Hands On: Algebra Model and Draw Subtraction Problems

#### **Mid-Chapter Checkpoint**

- 6.5 Algebra: Write Subtraction Sentences
- 6.6 Algebra: Write More Subtraction Sentences
- 6.7 Hands On: Algebra Addition and Subtraction

Chapter 6 Review/Test

Performance Task

#### Chapter 7 Represent, Count, and Write 11 to 19

- 7.1 Hands On: Model and Count 11 and 12
- 7.2 Count and Write 11 and 12

- 7.3 Hands On: Model and Count 13 and 14
- 7.4 Count and Write 13 and 14
- 7.5 Hands On: Model, Count, and Write 15
- 7.6 Problem Solving: Use Numbers to 15

#### **Mid-Chapter Checkpoint**

- 7.7 Hands On: Model and Count 16 and 17
- 7.8 Count and Write 16 and 17
- 7.9 Hands On: Model and Count 18 and 19
- 7.10 Count and Write 18 and 19
- Chapter 7 Review/Test
- Performance Task

## Chapter 8 Represent, Count, and Write 20 and Beyond

- 8.1 Hands On: Model and Count 20
- 8.2 Count and Write 20
- 8.3 Count and Order to 20
- 8.4 Problem Solving: Compare Numbers to 20

#### **Mid-Chapter Checkpoint**

- 8.5 Count to 50 by Ones
- 8.6 Count to 100 by Ones
- 8.7 Count to 100 by Tens
- 8.8 Count by Tens
- Chapter 8 Review/Test
- Performance Task

#### **GEOMETRY AND POSITIONS**

Critical Area: Describing shapes and space

#### Chapter 9 Identify and Describe Two-Dimensional Shapes

- 9.1 Identify and Name Circles
- 9.2 Describe Circles
- 9.3 Identify and Name Squares
- 9.4 Describe Squares
- 9.5 Identify and Name Triangles
- 9.6 Describe Triangles
- **Mid-Chapter Checkpoint**
- 9.7 Identify and Name Rectangles
- 9.8 Describe Rectangles
- 9.9 Identify and Name Hexagons
- 9.10 Describe Hexagons
- 9.11 Hands On: Algebra Compare Two-Dimensional Shapes
- 9.12 Problem Solving: Draw to Join Shapes
- Chapter 9 Review/Test
- Performance Task

#### Chapter 10 Identify and Describe Three-Dimensional Shapes

- 10.1 Three-Dimensional Shapes
- 10.2 Hands On: Identify, Name, and Describe Spheres
- 10.3 Hands On: Identify, Name, and Describe Cubes
- 10.4 Hands On: Identify, Name, and Describe Cylinders
- 10.5 Hands On: Identify, Name, and Describe Cones

#### **Mid-Chapter Checkpoint**

- 10.6 Problem Solving: Draw Two- and Three-Dimensional Shapes
- 10.7 Above and Below
- 10.8 Beside and Next To
- 10.9 In Front Of and Behind
- Chapter 10 Review/Test
- Performance Task

#### **MEASUREMENT AND DATA**

**Critical Area:** Representing, relating, and operating on whole numbers, initially with sets of objects

#### **Chapter 11 Measurement**

- 11.1 Hands On: Compare Lengths
- 11.2 Hands On: Compare Heights
- 11.3 Problem Solving: Direct Comparison

#### **Mid-Chapter Checkpoint**

11.4 Hands On: Compare Weights 11.5 Length, Height, and Weight Chapter 11 Review/Test Performance Task

#### **Chapter 12 Classifying and Data**

12.1 Hands On: Algebra • Classify and Count by Color
12.2 Hands On: Algebra: Classify and Count by Shape
12.3 Hands On: Algebra • Classify and Count by Size
Mid-Chapter Checkpoint
12.4 Make a Concrete Graph
12.5 Read a Concrete Graph
12.6 Problem Solving: Sort and Count
Chapter 12 Review/Test
Performance Task



#### OPERATIONS AND ALGEBRAIC THINKING

**Critical Area:** Developing understanding of addition, subtraction, and strategies for addition and subtraction within 20

#### **Chapter 1 Addition Concepts**

- 1.1 Algebra: Use Pictures to Add To
- 1.2 Hands On: Model Adding To
- 1.3 Hands On: Model Putting Together
- 1.4 Problem Solving: Model Addition

#### **Mid-Chapter Checkpoint**

- 1.5 Algebra: Add Zero
- 1.6 Hands On: Algebra Add in Any Order
- 1.7 Hands On: Algebra Put Together Numbers to 10
- 1.8 Addition to 10
- Chapter 1 Review/Test
- Performance Task

#### **Chapter 2 Subtraction Concepts**

- 2.1 Use Pictures to Show Taking From
- 2.2 Hands On: Model Taking From
- 2.3 Hands On: Model Taking Apart
- 2.4 Problem Solving: Model Subtraction
- 2.5 Use Pictures and Subtraction to Compare
- 2.6 Hands On: Subtract to Compare
- **Mid-Chapter Checkpoint**
- 2.7 Subtract All or Zero
- 2.8 Hands On: Algebra Take Apart Numbers
- 2.9 Subtraction from 10 or Less
- Chapter 2 Review/Test
- Performance Task

#### **Chapter 3 Addition Strategies**

- 3.1 Algebra: Add in Any Order
- 3.2 Count On
- 3.3 Hands On: Add Doubles
- 3.4 Hands On: Use Doubles to Add
- 3.5 Hands On: Doubles Plus 1 and Doubles Minus 1
- 3.6 Practice the Strategies

#### **Mid-Chapter Checkpoint**

- 3.7 Hands On: Add 10 and More
- 3.8 Hands On: Make a 10 to Add
- 3.9 Use Make a Ten to Add

3.10 Hands On: Algebra: Add 3 Numbers3.11 Algebra: Add 3 Numbers3.12 Problem Solving: Use Addition StrategiesChapter 3 Review/TestPerformance Task

#### **Chapter 4 Subtraction Strategies**

- 4.1 Count Back
- 4.2 Hands On: Think Addition to Subtract
- 4.3 Use Think Addition to Subtract

#### **Mid-Chapter Checkpoint**

- 4.4 Hands On: Make a 10 to Subtract
- 4.5 Break Apart to Subtract
- 4.6 Problem Solving: Use Subtraction Strategies

Chapter 4 Review/Test

Performance Task

#### **Chapter 5 Addition and Subtraction Relationships**

- 5.1 Problem Solving: Add or Subtract
- 5.2 Hands On: Record Related Facts
- 5.3 Identify Related Facts
- 5.4 Use Addition to Check Subtraction

#### **Mid-Chapter Checkpoint**

- 5.5 Hands On: Algebra Missing Numbers
- 5.6 Algebra: Use Related Facts
- 5.7 Choose an Operation
- 5.8 Hands On: Algebra Ways to Make Numbers to 20
- 5.9 Algebra: Equal and Not Equal

5.10 Basic Facts to 20 Chapter 5 Review/Test

Performance Task

#### NUMBER AND OPERATIONS IN BASE TEN

**Critical Area**: Developing understanding of whole number relationships and place value, including grouping in tens and ones

#### **Chapter 6 Count and Model Numbers**

- 6.1 Count by Ones to 120
- 6.2 Count by Tens to 120
- 6.3 Understand Ten and Ones
- 6.4 Hands On: Make Ten and Ones
- 6.5 Hands On: Tens

#### **Mid-Chapter Checkpoint**

- 6.6 Hands On: Tens and Ones to 50
- 6.7 Hands On: Tens and Ones to 100
- 6.8 Problem Solving: Show Numbers in Different Way

6.9 Model, Read, and Write Numbers from 100 to 110
6.10 Model, Read, and Write Numbers from 110 to 120
Chapter 6 Review/Test
Performance Task

#### **Chapter 7 Compare Numbers**

- 7.1 Hands On: Algebra Greater Than
- 7.2 Hands On: Algebra Less Than
- 7.3 Hands On: Algebra Use Symbols to Compare

#### **Mid-Chapter Checkpoint**

- 7.4 Problem Solving: Compare Numbers
- 7.5 Hands On: 10 Less, 10 More
- Chapter 7 Review/Test
- Performance Task

#### **Chapter 8 Two-Digit Addition and Subtraction**

- 8.1 Add and Subtract within 20
- 8.2 Hands On: Add Tens
- 8.3 Hands On: Subtract Tens

#### **Mid-Chapter Checkpoint**

- 8.4 Use a Hundred Chart to Add
- 8.5 Hands On: Use Models to Add
- 8.6 Hands On: Make Ten to Add
- 8.7 Hands On: Use Place Value to Add
- 8.8 Problem Solving: Addition Word Problems
- 8.9 Practice Addition and Subtraction

Chapter 8 Review/Test

Performance Task

#### **MEASUREMENT AND DATA**

**Critical Areas**: Developing understanding of linear measurement and measuring lengths as iterating length units

#### **Chapter 9 Measurement**

- 9.1 Hands On: Order Length
- 9.2 Indirect Measurement
- 9.3 Hands On: Use Nonstandard Units to Measure Length
- 9.4 Hands On: Make a Nonstandard Measuring Tool
- 9.5 Problem Solving: Measure and Compare

#### **Mid-Chapter Checkpoint**

- 9.6 Time to the Hour
- 9.7 Time to the Half Hour
- 9.8 Hands On: Tell Time to the Hour and Half Hour
- 9.9 Practice Time to the Hour and Half Hour
- Chapter 9 Review/Test
- Performance Task

#### **Chapter 10 Represent Data**

- 10.1 Read Picture Graphs
  10.2 Hands On: Make Picture Graphs
  10.3 Read Bar Graphs
  10.4 Hands On: Make Bar Graphs
  Mid-Chapter Checkpoint
  10.5 Read Tally Charts
- 10.6 Hands On: Make Tally Charts
- 10.7 Problem Solving: Represent Data
- Chapter 10 Review/Test
- Performance Task

#### GEOMETRY

**Critical Area**: Reasoning about attributes of, and composing and decomposing geometric shapes

#### **Chapter 11 Three-Dimensional Geometry**

- 11.1 Hands On: Three-Dimensional Shapes
- 11.2 Combine Three-Dimensional Shapes
- 11.3 Make New Three-Dimensional Shapes

#### **Mid-Chapter Checkpoint**

- 11.4 Problem Solving: Take Apart Three-Dimensional Shapes
- 11.5 Hands On: Two-Dimensional Shapes on Three-Dimensional Shapes

Chapter 11 Review/Test

Performance Task

#### **Chapter 12 Two-Dimensional Geometry**

- 12.1 Sort Two-Dimensional Shapes
- 12.2 Hands On: Describe Two-Dimensional Shapes
- 12.3 Hands On: Combine Two-Dimensional Shapes
- 12.4 Combine More Shapes
- 12.5 Problem Solving: Make New Two-Dimensional Shapes

#### **Mid-Chapter Checkpoint**

- 12.6 Find Shapes in Shapes
- 12.7 Take Apart Two-Dimensional Shapes
- 12.8 Equal or Unequal Parts
- 12.9 Halves
- 12.10 Fourths
- Chapter 12 Review/Test
- Performance Task



#### NUMBER SENSE AND PLACE VALUE

**Critical Area:** Extending understanding of base-ten notation

#### **Chapter 1 Number Concepts**

- 1.1 Hands On: Even and Odd Numbers
- 1.2 Represent Even Numbers
- 1.3 Understand Place Value
- 1.4 Expanded Form
- 1.5 Different Ways to Write Numbers

#### **Mid-Chapter Checkpoint**

- 1.6 Different Names for Numbers
- 1.7 Problem Solving: Tens and Ones
- 1.8 Counting Patterns within 100
- 1.9 Counting Patterns within 1,000

Chapter 1 Review/Test

Performance Assessment

#### Chapter 2 Numbers to 1,000

- 2.1 Group Tens as Hundreds
- 2.2 Explore 3-Digit Numbers
- 2.3 Hands On: Model 3-Digit Numbers
- 2.4 Hundreds, Tens, and Ones
- 2.5 Place Value to 1,000
- 2.6 Number Names
- 2.7 Different Forms of Numbers

#### **Mid-Chapter Checkpoint**

- 2.8 Different Ways to Show Numbers
- 2.9 Count On and Count Back by 10 and 100
- 2.10 Algebra: Number Patterns
- 2.11 Problem Solving: Compare Numbers
- 2.12 Algebra: Compare Numbers
- Chapter 2 Review/Test
- Performance Assessment

#### **ADDITION AND SUBTRACTION**

**Critical Area:** Building fluency with addition and subtraction

#### **Chapter 3 Basic Facts and Relationships**

- 3.1 Use Doubles Facts
- 3.2 Practice Addition Facts
- 3.3 Make a Ten to Add
- 3.4 Add 3 Addends

- 3.5 Relate Addition and Subtraction
- 3.6 Practice Subtraction Facts

#### **Mid-Chapter Checkpoint**

- 3.7 Using Ten to Subtract
- 3.8 Use Drawings to Represent Problems
- 3.9 Use Equations to Represent Problems
- 3.10 Problem Solving: Equal Groups
- 3.11 Repeated Addition
- Chapter 3 Review/Test

Performance Assessment

#### **Chapter 4 2-Digit Addition**

- 4.1 Break Apart Ones to Add
- 4.2 Use Compensation
- 4.3 Break Apart Addends as Tens and Ones
- 4.4 Model Regrouping for Addition
- 4.5 Model and Record 2-Digit Addition
- 4.6 2-Digit Addition
- 4.7 Practice 2-Digit Addition

#### **Mid-Chapter Checkpoint**

- 4.8 Rewrite 2-Digit Addition
- 4.9 Problem Solving: Addition
- 4.10 Write Equations to Represent Addition
- 4.11 Find Sums for 3 Addends
- 4.12 Find Sums for 4 Addends
- Chapter 4 Review/Test
- Performance Assessment

#### **Chapter 5 2-Digit Subtraction**

- 5.1 Break Apart Ones to Subtract
- 5.2 Break Apart Numbers to Subtract
- 5.3 Model Regrouping for Subtraction
- 5.4 Model and Record 2-Digit Subtraction
- 5.5 2-Digit Subtraction
- 5.6 Practice 2-Digit Subtraction

#### **Mid-Chapter Checkpoint**

- 5.7 Rewrite 2-Digit Subtraction
- 5.8 Add to Find Differences
- 5.9 Problem Solving: Subtraction
- 5.10 Write Equations to Represent Subtraction
- 5.11 Solve Multistep Problems
- Chapter 5 Review/Test
- Performance Assessment

#### **Chapter 6 3-Digit Addition and Subtraction**

- 6.1 Draw to Represent 3-Digit Addition
- 6.2 Break Apart 3-Digit Addends
- 6.3 3-Digit Addition: Regroup Ones

6.4 3-Digit Addition: Regroup Tens
6.5 Addition: Regroup Ones and Tens
Mid-Chapter Checkpoint
6.6 Problem Solving: 3-Digit Subtraction
6.7 3-Digit Subtraction: Regroup Tens
6.8 3-Digit Subtraction: Regroup Hundreds
6.9 Subtraction: Regroup Hundreds and Tens
6.10 Regrouping with Zeros
Chapter 6 Review/Test

#### Performance Assessment

#### **MEASUREMENT AND DATA**

Critical Area: Using standard units of measure

#### **Chapter 7 Money and Time**

- 7.1 Dimes, Nickels, and Pennies
- 7.2 Quarters
- 7.3 Count Collections
- 7.4 Hands On: Show Amounts in Two Ways
- 7.5 One Dollar

#### **Mid-Chapter Checkpoint**

- 7.6 Amounts Greater than \$1
- 7.7 Problem Solving: Money
- 7.8 Time to the Hour and Half Hour
- 7.9 Time to 5 Minutes
- 7.10 Practice Telling Time
- 7.11 A.M. and P.M.
- Chapter 7 Review/Test
- Performance Assessment

#### **Chapter 8 Length in Customary Units**

- 8.1 Hands On: Measure with Inch Models
- 8.2 Hands On: Make and Use a Ruler
- 8.3 Estimate Lengths in Inches
- 8.4 Hands On: Measure with an Inch Ruler
- 8.5 Problem Solving: Add and Subtract in Inches

#### **Mid-Chapter Checkpoint**

- 8.6 Hands On: Measure in Inches and Feet
- 8.7 Estimate Lengths in Feet
- 8.8 Choose a Tool
- 8.9 Display Measurement Data
- Chapter 8 Review/Test
- Performance Assessment

#### Chapter 9 Length in Metric Units

- 9.1 Hands On: Measure with a Centimeter Model
- 9.2 Estimate Lengths in Centimeters
- 9.3 Hands On: Measure with a Centimeter Ruler
- 9.4 Problem Solving: Add and Subtract Lengths

#### **Mid-Chapter Checkpoint**

- 9.5 Hands On: Centimeters and Meters
- 9.6 Estimate Lengths in Meters
- 9.7 Hands On: Measure and Compare Lengths
- Chapter 9 Review/Test

Performance Assessment

#### **Chapter 10 Data**

- 10.1 Collect Data
- 10.2 Read Picture Graphs
- 10.3 Make Picture Graphs

#### Mid-Chapter Checkpoint

- 10.4 Read Bar Graphs
- 10.5 Make Bar Graphs
- 10.6 Problem Solving: Display Data
- Chapter 10 Review/Test

Performance Assessment

#### GEOMETRY

**Critical Area**: Describe and analyze shapes

#### **Chapter 11 Geometry and Fraction Concepts**

- 11.1 Three-Dimensional Shapes
- 11.2 Attributes of Three-Dimensional Shapes
- 11.3 Two-Dimensional Shapes
- 11.4 Angles in Two-Dimensional Shapes
- 11.5 Sort Two-Dimensional Shapes
- 11.6 Hands On: Partition Rectangles

#### **Mid-Chapter Checkpoint**

- 11.7 Equal Parts
- 11.8 Show Equal Parts of a Whole
- 11.9 Describe Equal Parts
- 11.10 Problem Solving: Equal Shares

Chapter 11 Review/Test

#### Performance Assessment



#### WHOLE NUMBER OPERATIONS

**Critical Area:** Developing understanding of multiplication and division within 100

#### Chapter 1 Addition and Subtraction Within 1,000

- 1.1 Algebra: Number Patterns
- 1.2 Round to the Nearest Ten or Hundred
- 1.3 Estimate Sums
- 1.4 Mental Math Strategies for Addition
- 1.5 Algebra: Use Properties to Add
- 1.6 Use the Break Apart Strategy to Add
- 1.7 Use Place Value to Add

#### **Mid-Chapter Checkpoint**

- 1.8 Estimate Differences
- 1.9 Mental Math Strategies for Subtraction
- 1.10 Use Place Value to Subtract
- 1.11 Combine Place Values to Subtract
- 1.12 Problem Solving: Addition and Subtraction

Chapter 1 Review/Test

Performance Task

#### **Chapter 2 Represent and Interpret Data**

- 2.1 Problem Solving: Organize Data
- 2.2 Use Picture Graphs
- 2.3 Make Picture Graphs

#### **Mid-Chapter Checkpoint**

- 2.4 Use Bar Graphs
- 2.5 Make Bar Graphs
- 2.6 Solve Problems Using Data
- 2.7 Use and Make Line Plots
- Chapter 2 Review/Test

Performance Task

#### **Chapter 3 Understand Multiplication**

- 3.1 Count Equal Groups
- 3.2 Algebra: Relate Addition and Multiplication
- 3.3 Skip Count on a Number Line

#### **Mid-Chapter Checkpoint**

- 3.4 Problem Solving: Model Multiplication
- 3.5 Model with Arrays
- 3.6 Algebra: Commutative Property of Multiplication
- 3.7 Algebra: Multiply with 1 and 0
- Chapter 3 Review/Test
- Performance Task

#### Chapter 4 Multiplication Facts and Strategies

- 4.1 Multiply with 2 and 4
- 4.2 Multiply with 5 and 10
- 4.3 Multiply with 3 and 6
- 4.4 Algebra: Distributive Property
- 4.5 Multiply with 7

#### **Mid-Chapter Checkpoint**

- 4.6 Algebra: Associative Property of Multiplication
- 4.7 Algebra: Patterns on the Multiplication Table
- 4.8 Multiply with 8
- 4.9 Multiply with 9
- 4.10 Problem Solving: Multiplication
- Chapter 4 Review/Test

Performance Task

#### **Chapter 5 Use Multiplication Facts**

- 5.1 Algebra: Describe Patterns
- 5.2 Algebra: Find Unknown Factors

#### Mid-Chapter Checkpoint

- 5.3 Problem Solving: Use the Distributive Property
- 5.4 Use Place Value to Multiply with 10
- 5.5 Multiply with Multiples of 10
- Chapter 5 Review/Test

Performance Task

#### **Chapter 6 Understand Division**

- 6.1 Problem Solving: Model Division
- 6.2 Size of Equal Groups
- 6.3 Number of Equal Groups
- 6.4 Model with Bar Models
- 6.5 Algebra: Relate Subtraction and Division

#### **Mid-Chapter Checkpoint**

- 6.6 Investigate: Model with Arrays
- 6.7 Algebra: Relate Multiplication and Division
- 6.8 Algebra: Write Related Facts
- 6.9 Algebra: Division Rules for 1 and 0
- Chapter 6 Review/Test
- Performance Task

#### **Chapter 7 Division Facts and Strategies**

- 7.1 Divide by 2
- 7.2 Divide by 10
- 7.3 Divide by 5
- 7.4 Divide by 3
- 7.5 Divide by 4
- 7.6 Divide by 6

#### **Mid-Chapter Checkpoint**

7.7 Divide by 7
7.8 Divide by 8
7.9 Divide by 9
7.10 Problem Solving: Two-Step Problems
7.11 Investigate: Order of Operations
Chapter 7 Review/Test
Performance Task

#### FRACTIONS

**Critical Area:** Developing understanding of fractions, especially unit fractions (fractions with numerator 1)

#### **Chapter 8 Understand Fractions**

- 8.1 Equal Parts of a Whole
- 8.2 Equal Shares
- 8.3 Unit Fractions of a Whole
- 8.4 Fractions of a Whole
- 8.5 Fractions on a Number Line

#### **Mid-Chapter Checkpoint**

- 8.6 Relate Fractions and Whole Numbers
- 8.7 Fractions of a Group
- 8.8 Find Part of a Group Using Unit Fractions
- 8.9 Problem Solving: Find the Whole Group Using Unit Fractions
- Chapter 8 Review/Test

#### Performance Task

#### **Chapter 9 Compare Fractions**

- 9.1 Problem Solving: Compare Fractions
- 9.2 Compare Fractions with the Same Denominator
- 9.3 Compare Fractions with the Same Numerator
- 9.4 Compare Fractions

#### **Mid-Chapter Checkpoint**

- 9.5 Compare and Order Fractions
- 9.6 Investigate: Model Equivalent Fractions
- 9.7 Equivalent Fractions
- Chapter 9 Review/Test
- Performance Task

#### MEASUREMENT

**Critical Area:** Developing understanding of the structure of rectangular arrays and of area

#### **Chapter 10 Time, Length, Liquid Volume, and Mass**

- 10.1 Time to the Minute
- 10.2 A.M. and P.M.
- 10.3 Measure Time Intervals
- 10.4 Use Time Intervals
- 10.5 Problem Solving: Time Intervals
- **Mid-Chapter Checkpoint**
- 10.6 Measure Length
- 10.7 Estimate and Measure Liquid Volume
- 10.8 Estimate and Measure Mass
- 10.9 Solve Problems About Liquid Volume and Mass
- Chapter 10 Review/Test

Performance Task

#### **Chapter 11 Perimeter and Area**

- 11.1 Investigate: Model Perimeter
- 11.2 Find Perimeter
- 11.3 Algebra: Find Unknown Side Lengths
- 11.4 Understand Area
- 11.5 Investigate: Measure Area

#### **Mid-Chapter Checkpoint**

- 11.6 Use Area Models
- 11.7 Problem Solving: Area of Rectangles
- 11.8 Area of Combined Rectangles
- 11.9 Same Perimeter, Different Areas
- 11.10 Same Area, Different Perimeters

Chapter 11 Review/Test

Performance Task

#### GEOMETRY

**Critical Area**: Describing and analyzing two-dimensional shapes

#### **Chapter 12 Two-Dimensional Shapes**

- 12.1 Describe Plane Shapes
- 12.2 Describe Angles in Plane Shapes
- 12.3 Identify Polygons
- 12.4 Describe Sides of Polygons

#### **Mid-Chapter Checkpoint**

- 12.5 Classify Quadrilaterals
- 12.6 Draw Quadrilaterals
- 12.7 Describe Triangles
- 12.8 Problem Solving: Classify Plane Shapes
- 12.9 Investigate: Relate Shapes, Fractions, and Area

Chapter 12 Review/Test

Performance Task



## PLACE VALUE AND OPERATIONS WITH WHOLE NUMBERS

**Critical Area:** Developing understanding and fluency with multi-digit multiplication and developing understanding of dividing to find quotients involving multi-digit dividends

## Chapter 1 Place Value, Addition, and Subtraction to One Million

- 1.1 Model Place Value Relationships
- 1.2 Read and Write Numbers
- 1.3 Compare and Order Numbers
- 1.4 Round Numbers

#### Mid-Chapter Checkpoint

- 1.5 Rename Numbers
- 1.6 Add Multi-Digit Numbers
- 1.7 Subtract Multi-Digit Numbers
- 1.8 Problem Solving: Comparison Problems with Addition and Subtraction

Chapter 1 Review/Test

Performance Task

#### Chapter 2 Multiply by 1-Digit Numbers

- 2.1 Meaning of Multiplication
- 2.2 Comparison Problems
- 2.3 Multiply Tens, Hundreds, and Thousands
- 2.4 Estimate Products
- 2.5 Investigate: Multiply Using the Distributive Property
- 2.6 Multiply Using Expanded Form
- 2.7 Multiply Using Partial Products

#### **Mid-Chapter Checkpoint**

- 2.8 Multiply Using Mental Math
- 2.9 Problem Solving: Multistep Multiplication Problems
- 2.10 Multiply 2-Digit Numbers with Regrouping
- 2.11 Multiply 3-Digit and 4-Digit Numbers with Regrouping

2.12 Algebra: Solve Multistep Problems Using Equations Chapter 2 Review/Test

Performance Task

#### Chapter 3 Multiply 2-Digit Numbers

- 3.1 Multiply Tens
- 3.2 Estimate Products
- 3.3 Investigate: Area Models and Partial Products
- 3.4 Multiply Using Partial Products

#### Mid-Chapter Checkpoint

- 3.5 Multiply with Regrouping
- 3.6 Choose a Multiplication Method
- 3.7 Problem Solving: Multiply 2-Digit Numbers

Chapter 3 Review/Test

Performance Task

#### Chapter 4 Divide by 1-Digit Numbers

- 4.1 Estimate Quotients Using Multiples
- 4.2 Investigate: Remainders
- 4.3 Interpret the Remainder
- 4.4 Divide Tens, Hundreds, and Thousands
- 4.5 Estimate Quotients Using Compatible Numbers
- 4.6 Investigate: Division and the Distributive Property

#### **Mid-Chapter Checkpoint**

- 4.7 Divide Using Repeated Subtraction
- 4.8 Divide Using Partial Quotients
- 4.9 Investigate: Model Division with Regrouping
- 4.10 Place the First Digit
- 4.11 Divide by 1-Digit Numbers

4.12 Problem Solving: Multistep Division Problems Chapter 4 Review/Test Performance Task

#### **Chapter 5 Factors, Multiples, and Patterns**

- 5.1 Model Factors
- 5.2 Find Factors
- 5.3 Problem Solving: Common Factors
- Mid-Chapter Checkpoint
- 5.4 Relate Factors and Multiples
- 5.5 Prime and Composite Numbers
- 5.6 Algebra: Number Patterns
- Chapter 5 Review/Test
- Performance Task

#### **FRACTIONS AND DECIMALS**

**Critical Area**: Developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers

#### **Chapter 6 Fraction Equivalence and Comparison**

- 6.1 Investigate: Equivalent Fractions
- 6.2 Generate Equivalent Fractions
- 6.3 Simplest Forms
- 6.4 Common Denominators
- 6.5 Problem Solving: Factors, Multiples, and Equivalent Fractions

#### **Mid-Chapter Checkpoint**

- 6.6 Compare Fractions Using Benchmarks
- 6.7 Compare Fractions

6.8 Compare and Order Fractions Chapter 6 Review/Test Performance Task

#### **Chapter 7 Add and Subtract Fractions**

- 7.1 Investigate: Join and Separate Fractions
- 7.2 Write Fractions as Sums
- 7.3 Add Fractions Using Models
- 7.4 Subtract Fractions Using Models
- 7.5 Add and Subtract Fractions

#### **Mid-Chapter Checkpoint**

- 7.6 Rename Fractions and Mixed Numbers
- 7.7 Add and Subtract Mixed Numbers
- 7.8 Record Subtraction with Renaming
- 7.9 Algebra: Fractions and Properties of Addition

7.10 Problem Solving: Multistep Problems with Fractions Chapter 7 Review/Test Performance Task

#### **Chapter 8 Multiply Fractions by Whole Numbers**

- 8.1 Investigate: Multiples of Unit Fractions
- 8.2 Investigate: Multiples of Fractions
- **Mid-Chapter Checkpoint**
- 8.3 Model Multiplication of a Fraction by a Whole Number
- 8.4 Multiply a Fraction by a Whole Number
- 8.5 Problem Solving: Comparison Problems with Multiplication

Chapter 8 Review/Test

Performance Task

#### **Chapter 9 Relate Fractions and Decimals**

- 9.1 Relate Tenths and Decimals
- 9.2 Relate Hundredths and Decimals
- 9.3 Equivalent Fractions Decimals
- 9.4 Relate Fractions, Decimals, and Money
- 9.5 Problem Solving: Money

#### **Mid-Chapter Checkpoint**

- 9.6 Add Fractional Parts of 10 and 100
- 9.7 Compare Decimals
- Chapter 9 Review/Test
- Performance Task

#### GEOMETRY, MEASUREMENT, AND DATA

**Critical Area:** Understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry

#### **Chapter 10 Two-Dimensional Figures**

10.1 Lines, Rays, and Angles
10.2 Classify Triangles
10.3 Parallel and Perpendicular Lines
10.4 Classify Quadrilaterals
Mid-Chapter Checkpoint
10.5 Line Symmetry
10.6 Find and Draw Lines of Symmetry
10.7 Problem Solving: Shape Patterns
Chapter 10 Review/Test
Performance Task

#### Chapter 11 Angles

11.1 Investigate: Angles and Fractional Parts of a Circle
11.2 Degrees
11.3 Measure and Draw Angles
Mid-Chapter Checkpoint
11.4 Join and Separate Angles
11.5 Problem Solving: Angle Equations
Chapter 11 Review/Test
Performance Task

#### Chapter 12 Relative Sizes of Measurement Units

12.1 Measurement Benchmarks
12.2 Customary Units of Length
12.3 Customary Units of Weight
12.4 Customary Units of Liquid Volume
12.5 Line Plots
Mid-Chapter Checkpoint
12.6 Investigate: Metric Units of Length
12.7 Metric Units of Liquid Volume and Mass
12.8 Time
12.9 Problem Solving: Elapsed Time
12.10 Solve Problems with Mixed Measures
12.11 Patterns in Measurement Units
Chapter 12 Review/Test
Performance Task

#### **Chapter 13 Perimeter and Area**

- 13.1 Perimeter
- 13.2 Area
- 13.3 Perimeter and Area of Combined Figures
- **Mid-Chapter Checkpoint**
- 13.4 Find Unknown Measures
- 13.5 Problem Solving: Find the Area
- Chapter 13 Review/Test

Performance Task



## FLUENCY WITH WHOLE NUMBERS AND DECIMALS

**Critical Area:** Extending division to 2-digit divisors, integrating decimal fractions into the place value system and developing understanding of operations with decimals to hundredths, and developing fluency with whole number and decimal operations

## Chapter 1 Place Value, Multiplication, and Expressions

- 1.1 Investigate: Place Value and Patterns
- 1.2 Place Value of Whole Numbers
- 1.3 Algebra: Properties
- 1.4 Algebra: Powers of 10 and Exponents
- 1.5 Algebra: Multiplication Patterns

#### Mid-Chapter Checkpoint

- 1.6 Multiply by 1-Digit Numbers
- 1.7 Multiply by 2-Digit Numbers
- 1.8 Relate Multiplication to Division
- 1.9 Problem Solving: Multiplication and Division
- 1.10 Algebra: Numerical Expressions
- 1.11 Algebra: Evaluate Numerical Expressions
- 1.12 Algebra: Grouping Symbols
- Chapter 1 Review/Test
- Performance Task

#### Chapter 2 Divide Whole Numbers

- 2.1 Place the First Digit
- 2.2 Divide by 1-Digit Divisors
- 2.3 Investigate: Division with 2-Digit Divisors
- 2.4 Partial Quotients

#### **Mid-Chapter Checkpoint**

- 2.5 Estimate with 2-Digit Divisors
- 2.6 Divide by 2-Digit Divisors
- 2.7 Interpret the Remainder
- 2.8 Adjust Quotients
- 2.9 Problem Solving: Division
- Chapter 2 Review/Test
- Performance Task

#### Chapter 3 Add and Subtract Decimals

- 3.1 Investigate: Thousandths
- 3.2 Algebra: Place Value of Decimals

- 3.3 Compare and Order Decimals
- 3.4 Round Decimals
- 3.5 Investigate: Decimal Addition
- 3.6 Investigate: Decimal Subtraction

#### **Mid-Chapter Checkpoint**

- 3.7 Estimate Decimal Sums and Differences
- 3.8 Add Decimals
- 3.9 Subtract Decimals
- 3.10 Algebra: Patterns with Decimals
- 3.11 Problem Solving: Add and Subtract Money
- 3.12 Choose a Method
- Chapter 3 Review/Test
- Performance Task

#### **Chapter 4 Multiply Decimals**

- 4.1 Algebra: Multiplication Patterns with Decimals
- 4.2 Investigate: Multiply Decimals and Whole Numbers
- 4.3 Multiplication with Decimals and Whole Numbers
- 4.4 Multiply Using Expanded Form
- 4.5 Problem Solving: Multiply Money

#### **Mid-Chapter Checkpoint**

- 4.6 Investigate: Decimal Multiplication
- 4.7 Multiply Decimals
- 4.8 Zeros in the Product
- Chapter 4 Review/Test

Performance Task

#### **Chapter 5 Divide Decimals**

- 5.1 Investigate: Divide Decimals by Whole Numbers
- 5.2 Estimate Quotients
- 5.3 Algebra: Division Patterns with Decimals
- 5.4 Division of Decimals by Whole Numbers

#### **Mid-Chapter Checkpoint**

- 5.5 Investigate: Decimal Division
- 5.6 Divide Decimals
- 5.7 Write Zeros in the Dividend
- 5.8 Problem Solving: Decimal Operations
- Chapter 5 Review/Test

Performance Task

#### **OPERATIONS WITH FRACTIONS**

**Critical Area:** Developing fluency with addition and subtraction of fractions and developing understanding of the multiplication of fractions and of divisions of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions)

#### Chapter 6 Add and Subtract Fractions with Unlike Denominators

- 6.1 Investigate: Addition with Unlike Denominators
- 6.2 Investigate: Subtraction with Unlike Denominators
- 6.3 Estimate Fraction Sums and Differences
- 6.4 Common Denominators and Equivalent Fractions
- 6.5 Add and Subtract Fractions

#### **Mid-Chapter Checkpoint**

- 6.6 Add and Subtract Mixed Numbers
- 6.7 Subtraction with Renaming
- 6.8 Algebra: Patterns with Fractions
- 6.9 Problem Solving: Practice Addition and Subtraction
- 6.10 Algebra: Use Properties of Addition
- Chapter 6 Review/Test
- Performance Task

#### **Chapter 7 Multiply Fractions**

- 7.1 Find Part of a Group
- 7.2 Investigate: Multiply Fractions and Whole Numbers
- 7.3 Fraction and Whole Number Multiplication
- 7.4 Investigate: Multiply Fractions
- 7.5 Compare Fraction Factors and Products
- 7.6 Fraction Multiplication

#### **Mid-Chapter Checkpoint**

- 7.7 Investigate: Area and Mixed Numbers
- 7.8 Compare Mixed Number Factors and Products
- 7.9 Multiply Mixed Numbers
- 7.10 Problem Solving: Find Unknown Lengths

Chapter 7 Review/Test

Performance Task

#### **Chapter 8 Divide Fractions**

- 8.1 Investigate: Divide Fractions and Whole Numbers
- 8.2 Connect Fractions to Division
- 8.3 Problem Solving: Use Multiplication

#### **Mid-Chapter Checkpoint**

- 8.4 Fraction and Whole Number Division
- 8.5 Interpret Division with Fractions
- Chapter 8 Review/Test
- Performance Task

#### **GEOMETRY AND MEASUREMENT**

Critical Area: Developing understanding of volume

#### **Chapter 9 Algebra: Patterns and Graphing**

- 9.1 Line Plots
- 9.2 Ordered Pairs

- 9.3 Investigate: Graph Data
- 9.4 Line Graphs

#### **Mid-Chapter Checkpoint**

- 9.5 Numerical Patterns
- 9.6 Problem Solving: Find a Rule
- 9.7 Graph and Analyze Relationships
- Chapter 9 Review/Test

Performance Task

#### **Chapter 10 Convert Units of Measure**

- 10.1 Customary Length
- 10.2 Customary Capacity
- 10.3 Weight
- 10.4 Conversions in Multistep Problems

#### **Mid-Chapter Checkpoint**

- 10.5 Metric Measures
- 10.6 Problem Solving: Customary and Metric Conversions
- 10.7 Elapsed Time

Chapter 10 Review/Test

Performance Task

#### **Chapter 11 Geometry and Volume**

- 11.1 Polygons
- 11.2 Triangles
- 11.3 Quadrilaterals
- 11.4 Problem Solving: Properties of Two-Dimensional Figures
- 11.5 Three-Dimensional Figures

#### **Mid-Chapter Checkpoint**

- 11.6 Investigate: Unit Cubes and Solid Figures
- 11.7 Investigate: Understand Volume
- 11.8 Investigate: Estimate Volume
- 11.9 Volume of Rectangular Prisms
- 11.10 Algebra: Apply Volume Formulas
- 11.11 Problem Solving: Compare Volumes
- 11.12 Find Volume of Composed Figures

Chapter 11 Review/Test

Performance Task



#### THE NUMBER SYSTEM

**Critical Area:** Completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers

#### Chapter 1 Whole Numbers and Decimals

- 1.1 Divide Multi-Digit Numbers
- 1.2 Prime Factorization
- 1.3 Least Common Multiple
- 1.4 Greatest Common Factor
- 1.5 Problem Solving: Apply the Greatest Common Factor

#### Mid-Chapter Checkpoint

- 1.6 Add and Subtract Decimals
- 1.7 Multiply Decimals
- 1.8 Divide Decimals by Whole Numbers
- 1.9 Divide with Decimals
- Chapter 1 Review/Test
- Performance Task

#### **Chapter 2** Fractions

- 2.1 Fractions and Decimals
- 2.2 Compare and Order Fractions and Decimals
- 2.3 Multiply Fractions
- 2.4 Simplify Factors

#### Mid-Chapter Checkpoint

- 2.5 Investigate: Model Fraction Division
- 2.6 Estimate Quotients
- 2.7 Divide Fractions
- 2.8 Investigate: Model Mixed Number Division
- 2.9 Divide Mixed Numbers
- 2.10 Problem Solving: Fraction Operations

Chapter 2 Review/Test

Performance Task

#### **Chapter 3 Rational Numbers**

- 3.1 Understand Positive and Negative Numbers
- 3.2 Compare and Order Integers
- 3.3 Rational Numbers and the Number Line
- 3.4 Compare and Order Rational Numbers

#### **Mid-Chapter Checkpoint**

- 3.5 Absolute Value
- 3.6 Compare Absolute Values
- 3.7 Rational Numbers and the Coordinate Plane
- 3.8 Ordered Pair Relationships

3.9 Distance on the Coordinate Plane3.10 Problem Solving: The Coordinate PlaneChapter 3 Review/TestPerformance Task

#### **RATIOS AND RATES**

**Critical Areas**: Connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems

#### **Chapter 4** Ratios and Rates

- 4.1 Investigate: Model Ratios
- 4.2 Ratios and Rates
- 4.3 Equivalent Ratios and Multiplication Tables
- 4.4 Problem Solving: Use Tables to Compare Ratios
- 4.5 Use Equivalent Ratios
- **Mid-Chapter Checkpoint**
- 4.6 Find Unit Rates
- 4.7 Algebra: Use Unit Rates
- 4.8 Algebra: Equivalent Ratios and Graphs
- Chapter 4 Review/Test

Performance Task

#### **Chapter 5 Percents**

- 5.1 Investigate: Model Percents
- 5.2 Write Percents as Fractions and Decimals
- 5.3 Write Fractions and Decimals as Percents

#### Mid-Chapter Checkpoint

- 5.4 Percent of a Number
- 5.5 Problem Solving: Percents
- 5.6 Find the Whole from a Percent
- Chapter 5 Review/Test

Performance Task

#### Chapter 6 Units of Measure

- 6.1 Convert Units of Length
- 6.2 Convert Units of Capacity
- 6.3 Convert Units of Weight and Mass

#### **Mid-Chapter Checkpoint**

6.4 Transform Units

6.5 Problem Solving: Distance, Rate, and Time Formulas Chapter 6 Review/Test Performance Task

#### **EXPRESSIONS AND EQUATIONS**

**Critical Area**: Writing, interpreting and using expressions and equations

#### **Chapter 7 Algebra: Expressions**

- 7.1 Exponents
- 7.2 Evaluate Expressions Involving Exponents
- 7.3 Write Algebraic Expressions
- 7.4 Identify Parts of Expressions
- 7.5 Evaluate Algebraic Expressions and Formulas

#### **Mid-Chapter Checkpoint**

- 7.6 Use Algebraic Expressions
- 7.7 Problem Solving: Combine Like Terms
- 7.8 Generate Equivalent Expressions
- 7.9 Identify Equivalent Expressions

Chapter 7 Review/Test

Performance Task

#### **Chapter 8 Algebra: Equations and Inequalities**

- 8.1 Solutions of Equations
- 8.2 Write Equations
- 8.3 Investigate: Model and Solve Addition Equations
- 8.4 Solve Addition and Subtraction Equations
- 8.5 Investigate: Model and Solve Multiplication Equations
- 8.6 Solve Multiplication and Division Equations
- 8.7 Problem Solving: Equations with Fractions

#### **Mid-Chapter Checkpoint**

- 8.8 Solutions of Inequalities
- 8.9 Write Inequalities
- 8.10 Graph Inequalities
- Chapter 8 Review/Test
- Performance Task

#### Chapter 9 Algebra: Relationships Between Variables

- 9.1 Independent and Dependent Variables
- 9.2 Equations and Tables
- 9.3 Problem Solving: Analyze Relationships

#### **Mid-Chapter Checkpoint**

- 9.4 Graph Relationships
- 9.5 Equations and Graphs
- Chapter 9 Review/Test
- Performance Task

#### THINK STATISTICALLY

Critical Areas: Develop understanding to think statistically; Build on previous work in area by reasoning about relationships among shapes to determine area, surface area and volume

#### Chapter 10 Area

- 10.1 Algebra: Area of Parallelograms
- 10.2 Investigate: Explore Area of Triangles
- 10.3 Algebra: Area of Triangles
- 10.4 Investigate: Explore Area of Trapezoids

10.5 Algebra: Area of Trapezoids

#### **Mid-Chapter Checkpoint**

- 10.6 Area of Regular Polygons
- 10.7 Composite Figures
- 10.8 Problem Solving: Changing Dimensions
- 10.9 Figures on the Coordinate Plane
- Chapter 10 Review/Test
  - Performance Task

#### **Chapter 11 Surface Area and Volume**

- 11.1 Three Dimensional Figures and Nets
- 11.2 Investigate: Explore Surface Area using Nets
- 11.3 Algebra: Surface Area of Prisms
- 11.4 Algebra: Surface Area of Pyramids

#### **Mid-Chapter Checkpoint**

- 11.5 Investigate: Fractions and Volume
- 11.6 Algebra: Volume of Rectangular Prisms
- 11.7 Problem Solving: Geometric Measurements

Chapter 11 Review/Test

Performance Task

#### **Chapter 12 Data Displays and Measures of Center**

- 12.1 Recognize Statistical Questions
- 12.2 Describe Data Collection
- 12.3 Dot Plots and Frequency Tables
- 12.4 Histograms
- **Mid-Chapter Checkpoint**
- 12.5 Investigate: Mean as Fair Share and Balance Point
- 12.6 Measures of Center
- 12.7 Effects of Outliers
- 12.8 Problem Solving: Data Displays
- Chapter 12 Review/Test

Performance Task

#### **Chapter 13 Variability and Data Distributions**

- 13.1 Patterns in Data
- 13.2 Box Plots
- 13.3 Investigate: Mean Absolute Deviation
- 13.4 Measures of Variability
- **Mid-Chapter Checkpoint**
- 13.5 Choose Appropriate Measures of Center and Variability
- 13.6 Apply Measures of Center and Variability
- 13.7 Describe Distributions
- 13.8 Problem Solving: Misleading Statistics

Chapter 13 Review/Test

Performance Task

Notes	







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