

## Math Content: Grade 4

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Review of Lesson 1 to 14

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Lesson 1:   Learning Numeration

Unit 1.1      Numeration in Thousands

Unit 1.2      Numeration in Millions

Unit 1.3      Place Values

Unit 1.4      Comparing and Ordering Numbers

Unit 1.5      Rounding

Unit 1.6      Introducing Decimals Using Money

Unit 1.7      Purchasing and Making Change

Unit 1.8      Problem Solving

Unit 1.9      Math Challenges

Lesson 2:   Addition and Subtraction Part I

Unit 2.1      Mental Addition and Subtraction

Unit 2.2      Estimating Sums and Differences

Unit 2.3      Addition and Subtraction of Whole Numbers

Unit 2.4      Addition and Subtraction across Zeroes

Unit 2.5      Addition and Subtraction Patterns over Increasing  
Place Values

Unit 2.6      Math Challenges

Lesson 3:   Addition and Subtraction Part II

Unit 3.1      Finding the Missing Digits

Unit 3.2      Problem Solving with Missing or Extra Information

Unit 3.3      Mixed Problem Solving

Unit 3.4      Problem Solving Using Pictures and Equations

Unit 3.5      Math Challenges

#### Lesson 4: Multiplication Part I

- Unit 4.1 Multiplication Concept
- Unit 4.2 Number Patterns for Multiplication
- Unit 4.3 Multiplication Facts to 9
- Unit 4.4 Properties of Multiplication
- Unit 4.5 Multiplication Using 2, 3, and 4 as Factors
- Unit 4.6 Math Challenges

Review of Lesson 1, 2, 3, and 4

#### Lesson 5: Multiplication Part II

- Unit 5.1 Multiplication Using 5, 6, and 7 as Factors
- Unit 5.2 Multiplication Using 8 and 9 as Factors
- Unit 5.3 Multiplication Using 10, 11, and 12 as Factors
- Unit 5.4 Multiplication in Horizontal and Vertical Form
- Unit 5.5 Multiplication by the Same Number
- Unit 5.6 Problem Solving Using Pictures and Equations
- Unit 5.7 Math Challenges

#### Lesson 6: Division

- Unit 6.1 Division Concept
- Unit 6.2 Connecting Multiplication with Division
- Unit 6.3 Division Facts to 9
- Unit 6.4 Special Division Problems
- Unit 6.5 Problem Solving Using Pictures and Equations
- Unit 6.6 Math Challenges

#### Lesson 7: Multiplying by 1-Digit Numbers Part I

- Unit 7.1 Find the Multiples of Given Numbers
- Unit 7.2 Multiplication Using Multiples of 10 and 100
- Unit 7.3 Multiplication Using Mental Math
- Unit 7.4 Estimate the Product
- Unit 7.5 Problem Solving as Using Reasoning
- Unit 7.6 Math Challenges

#### Lesson 8: Multiplying by 1-Digit Numbers Part II

- Unit 8.1 Expanded Forms in Multiplication

- Unit 8.2 Multiply 2-Digit Numbers by 1-Digit Number without Regrouping
- Unit 8.3 Multiply 2-Digit Numbers by 1-Digit Number with Regrouping
- Unit 8.4 Multiplication of 3-Digit Numbers by 1-Digit Number with Regrouping
- Unit 8.5 Problem Solving Using Pictures and Equations
- Unit 8.6 Math Challenges

**Review of Lesson 5, 6, 7, and 8**

**Lesson 9: Algebra Part I**

- Unit 9.1 Introducing Variables and Expressions
- Unit 9.2 Writing Variable Expressions
- Unit 9.3 Geometric Growth Pattern
- Unit 9.4 Addition and Subtraction
- Unit 9.5 Multiplication and Division
- Unit 9.6 Math Challenges

**Lesson 10: Algebra Part II**

- Unit 10.1 Evaluate Variable Expressions
- Unit 10.2 Understanding Like and Unlike Terms
- Unit 10.3 Addition and Subtraction of Like Terms
- Unit 10.4 Simplify the Expressions Using the Order of Operations
- Unit 10.5 Problem Solving Using Object and Reason
- Unit 10.6 Math Challenges

**Lesson 11: Multiplication Strategies**

- Unit 11.1 Multiplication Facts to 12
- Unit 11.2 Use Mental Math for Large Number Multiplications
- Unit 11.3 Estimating Products
- Unit 11.4 Arrays and Expanded Form
- Unit 11.5 2-Digit Numbers Multiplication
- Unit 11.6 3-Digit and 2-Digit Number Multiplication
- Unit 11.7 Math Challenges

**Lesson 12: Multiplication by 2-Digit Numbers**

- Unit 12.1 Multiplication with Numbers Ending at Zero
- Unit 12.2 Multiplying Three 1-Digit Numbers
- Unit 12.3 Multiplication Patterns over Increasing Place Values
- Unit 12.4 Special Multiplication Problems

- Unit 12.5 Equalities and Inequalities in Multiplication Sentences
- Unit 12.6 Multistep Multiplication Problems
- Unit 12.7 Math Challenges

Review of Lesson 9, 10, 11, and 12

### Lesson 13: Dividing by 1-Digit Numbers Part I

- Unit 13.1 Mental Math Using Division
- Unit 13.2 Estimate Quotients
- Unit 13.3 Find Remainders
- Unit 13.4 Division Models and Symbols
- Unit 13.5 Divide 2- and 3-Digit Numbers by 1-Digit Numbers
- Unit 13.6 Divide 2- and 3-Digit Numbers by 2-Digit Numbers
- Unit 13.7 Divide Larger Numbers by Multiples of 10
- Unit 13.8 Math Challenges

### Lesson 14: Dividing by 1-Digit Numbers Part II

- Unit 14.1 Identifying Missing Numbers in Division Equations
- Unit 14.2 Divide Numbers Ending at Zeroes
- Unit 14.3 Equalities and Inequalities in Division Sentences
- Unit 14.4 Factors
- Unit 14.5 Recognize Prime and Composite Numbers
- Unit 14.6 Problem Solving
- Unit 14.7 Mixed Operations: Multiplication and Division
- Unit 14.8 Math Challenges

### Lesson 15: Geometry Part I

- Unit 15.1 Points, Lines, and Planes
- Unit 15.2 Rays, Line Segments, and Angles
- Unit 15.3 Measuring Angles
- Unit 15.4 Identifying Polygons
- Unit 15.5 Recognizing Shapes and Angles
- Unit 15.6 Math Challenges

### Lesson 16: Geometry Part II

- Unit 16.1 Count and Compare Sides, Edges, Faces, and Vertices
- Unit 16.2 Types of Triangles
- Unit 16.3 Classify Quadrilaterals

- Unit 16.4    Circles and Parts of a Circle
- Unit 16.5    Calculate Radius, Diameter, and Circumference
- Unit 16.6    Problem Solving
- Unit 16.7    Math Challenges

Review of Lesson 13, 14, 15, and 16

## Lesson 17: Fractions

- Unit 17.1    Parts of Sets
- Unit 17.2    Relate Fractions and Division
- Unit 17.3    Fraction of a Number
- Unit 17.4    Estimating Fractions
- Unit 17.5    Evaluate Equivalent and Non-Equivalent Fractions
- Unit 17.6    Simplify the Fractions
- Unit 17.7    Proper and Improper Fractions
- Unit 17.8    Ordering and Comparing Fractions
- Unit 17.9    Problem Solving
- Unit 17.10   Math Challenges

## Lesson 18: Fraction Operation

- Unit 18.1    Adding Fractions with Like Denominators
- Unit 18.2    Subtracting Fractions with Like Denominators
- Unit 18.3    Adding Fractions with Unlike Denominators
- Unit 18.4    Subtracting Fractions with Unlike Denominators
- Unit 18.5    Adding More Fractions with Like/Unlike Denominators
- Unit 18.6    Converting Fractions to Mixed Numbers
- Unit 18.7    Convert Mixed Numbers to Fractions
- Unit 18.8    Find the Missing Numerator and Denominator
- Unit 18.9    Problem Solving Using Pictures and Equations
- Unit 18.10   Math Challenges

## Lesson 19: Decimals

- Unit 19.1    Decimal Concepts
- Unit 19.2    Compare and Order Decimal Numbers
- Unit 19.3    Fractions and Decimals Conversion
- Unit 19.4    Rounding Decimal Numbers
- Unit 19.5    Compare Pairs of Numbers in Decimal or Fraction Form
- Unit 19.6    Using Number Lines to Understand Fractions and Decimals

- Unit 19.7 Fractions, Mixed Numbers, and Decimals on a Number Line
- Unit 19.8 Problem Solving Using Pictures
- Unit 19.9 Math Challenges

#### Lesson 20: Decimal Number Operation

- Unit 20.1 Addition
- Unit 20.2 Subtraction
- Unit 20.3 Estimating Sums and Differences
- Unit 20.4 Addition and Subtraction Using Decimal Numbers
- Unit 20.5 Addition or Subtraction of 3 or More Decimal Numbers
- Unit 20.6 Multiply a Decimal Number by a Whole Number
- Unit 20.7 Divide a Decimal Number by a Whole Number
- Unit 20.8 Inequalities with Addition and Subtraction
- Unit 20.9 Problem Solving
- Unit 20.10 Math Challenges

Review of Lesson 17, 18, 19, and 20

#### Lesson 21: Measurement Part I

- Unit 21.1 Area Concept
- Unit 21.2 Measure Area of Squares and Rectangles
- Unit 21.3 Area of Irregular Shapes
- Unit 21.4 Area of Parallelograms
- Unit 21.5 Area of Triangles
- Unit 21.6 Perimeter
- Unit 21.7 Perimeter and Area of Different Shapes
- Unit 21.8 Use of Area and Perimeter to Determine Cost
- Unit 21.9 Problem Solving
- Unit 21.10 Math Challenges

#### Lesson 22: Measurement: Part II

- Unit 22.1 Length in Customary Units
- Unit 22.2 Capacity in Customary Units
- Unit 22.3 Weight in Customary Units
- Unit 22.4 Convert Customary Units
- Unit 22.5 Length in Metric Units
- Unit 22.6 Capacity in Metric Units
- Unit 22.7 Weight in Metric Units
- Unit 22.8 Changing Metric Units

Unit 22.9 Math Challenges

### Lesson 23: Solid and Measurement

Unit 23.1 Identify Solid Figures

Unit 23.2 Represent 3-Dimensional Solids as 2-Dimensional Nets

Unit 23.3 Find Volume

Unit 23.4 Problem Solving

Unit 23.5 Time and Elapsed Time

Unit 23.6 Calendar

Unit 23.7 Temperature

Unit 23.8 Math Challenges

### Lesson 24: Graph

Unit 24.1 Read a Table

Unit 24.2 Make Frequency Table

Unit 24.3 Understanding Bar Graphs

Unit 24.4 Locate a Point on a Coordinate Plane

Unit 24.5 Interpret Line Graphs

Unit 24.6 Find the Mean and the Median

Unit 24.7 Find the Mode and the Range

Unit 24.8 Read and Create Stem-and-Leaf Plots

Unit 24.9 Read and Create Circle Graphs

Unit 24.10 Problem Solving

Unit 24.11 Math Challenges

Review of Lesson 21, 22, 23, and 24

### Lesson 25: Equation and Function

Unit 25.1 Algebra: Equal or Not Equal

Unit 25.2 Algebra: Solving Addition and Subtraction Equations

Unit 25.3 Algebra: Solving Multiplication and Division Equations

Unit 25.4 Algebra: Understanding Inequalities

Unit 25.5 Understanding Function Tables

Unit 25.6 Develop Linear Functions

Unit 25.7 Graph Linear Functions

Unit 25.8 Problem Solving: Work Backward

Unit 25.9 Math Challenges

### Lesson 26: Transformation, Congruence, and Symmetry



- Unit 26.1 Translation Image of Figures
- Unit 26.2 Reflection
- Unit 26.3 Rotation of Figures
- Unit 26.4 Congruent Figures
- Unit 26.5 Similar Figures
- Unit 26.6 Line Symmetry of Figures
- Unit 26.7 Rotational Symmetry of Figures
- Unit 26.8 Problem Solving: Draw a Picture
- Unit 26.9 Math Challenges

### Lesson 27: Probability

- Unit 27.1 Experiments and Outcomes
- Unit 27.2 Combination of Outcomes
- Unit 27.3 Tree Diagrams
- Unit 27.4 Probability Expressions
- Unit 27.5 Probability of an Event
- Unit 27.6 Problem Solving: Use Reasoning
- Unit 27.7 Math Challenges

**Review of Lesson 1 to 14**

**Review of Lesson 15 to 27**