# Math Content: Grade 3


| | |
|---|---|
| Lesson 1 | Learning Numeration Part I |
| Lesson 2 | Learning Numeration Part II |
| Lesson 3 | Addition of Whole Numbers Part I |
| Lesson 4 | Addition of Whole Numbers Part II |
| Review 1 | Review of Lesson 1, 2, 3, and 4 |
| Lesson 5 | Subtraction and Making Sense of Numbers |
| Lesson 6 | Solving Problems by Subtracting Whole Numbers |
| Lesson 7 | Understanding Multiplication Facts and Meaning Part I |
| Lesson 8 | Understanding Multiplication Facts and Meaning Part II |
| Review 2 | Review of Lesson 5, 6, 7, and 8 |
| Lesson 9 | Using Known Fact Strategies in Multiplication |
| Lesson 10 | Understanding Meaning of Division |
| Lesson 11 | Identifying Division Facts Part I |
| Lesson 12 | Identifying Division Facts Part II |
| Review 3 | Review of Lesson 9, 10, 11, and 12 |
| Lesson 13 | Patterns and Relationships Exploration |
| Lesson 14 | Geometry: Solids and Shapes Part I |
| Lesson 15 | Geometry: Solids and Shapes Part II |
| Lesson 16 | Fractions Part I |
| Review 4 | Review of Lesson 13, 14, 15, and 16 |
| Lesson 17 | Fractions Part II |
| Lesson 18 | Concepts of Decimals and Money Part I |
| Lesson 19 | Concepts of Decimals and Money Part II |
| Lesson 20 | Measurement: Customary Units Part I |
| Review 5 | Review of Lesson 17, 18, 19, and 20 |
| Lesson 21 | Measurement: Customary Units Part II |
| Lesson 22 | Measurement: Metric Units |
| Lesson 23 | Measurement: Area, Perimeter, and Volume |
| Lesson 24 | Measurement: Time and Temperature |
| Review 6 | Review of Lesson 21, 22, 23, and 24 |
| Lesson 25 | Multiplication: Larger Numbers |

Lesson 26 Division: Single-Digit Number

Lesson 27 Exploring Data, Graphs, and Probability

Review of Lesson 1 to 14

Review of Lesson 15 to 27

Lesson 1: Learning Numeration Part I

Unit 1.1 Numbers to Hundreds
Unit 1.2 Numbers to Thousands
Unit 1.3 Investigating Larger Numbers
Unit 1.4 Odd and Even Numbers
Unit 1.5 Different Ways to Name Numbers
Unit 1.6 Number Comparison
Unit 1.7 Math Challenges

Lesson 2: Learning Numeration Part II

Unit 2.1 Comparing Quantities in Word Problems
Unit 2.2 Number Order
Unit 2.3 Introducing Decimal for Money
Unit 2.4 Learning What Changes to Expect
Unit 2.5 Skip Counting by 10,20, 50, and 100 in Ascending and Descending Order
Unit 2.6 Skip Counting Puzzles
Unit 2.7 Making an Organized List
Unit 2.8 Math Challenges

Lesson 3: Addition of Whole Numbers Part I

Unit 3.1 Addition of Whole Numbers
Unit 3.2 Exploring Addition on a Hundred Chart
Unit 3.3 Addition Using Mental Math
Unit 3.4 How to Round
Unit 3.5 How to Estimate Sums
Unit 3.6 Exploring Mixed Problem Solving
Unit 3.7 Adding Three 2-Digit Numbers
Unit 3.8 Math Challenges

Lesson 4: Addition of Whole Numbers Part II

Unit 4.1 Adding Whole Numbers
Unit 4.2 How to Add 3-Digit Numbers
Unit 4.3 Exploring Addition of 3 or More Numbers
Unit 4.4 Addition Pattern with Place Values

Unit 4.5 Balance Addition Equations
Unit 4.6 Drawing Pictures in Problem Solving
Unit 4.7 Math Challenges
Review of Lesson 1, 2, 3, and 4

Lesson 5: Subtraction and Making Sense of Numbers

Unit 5.1 Meaning of Subtraction
Unit 5.2 Subtract Vertically or Horizontally
Unit 5.3 How to Subtract Using a Hundred Chart
Unit 5.4 Subtracting Using Mental Math
Unit 5.5 How to Estimate Differences
Unit 5.6 Write Subtraction Equations
Unit 5.7 Compare Subtraction Equation
Unit 5.8 Using Reasonableness in Problem Solving
Unit 5.9 Math Challenges

Lesson 6: Solving Problems by Subtracting Whole Numbers

Unit 6.1 Models to Subtract 2-Digit Numbers
Unit 6.2 Two-Digit Number Subtractions
Unit 6.3 Models to Subtract 3-Digit Numbers
Unit 6.4 Three-Digit Number Subtractions
Unit 6.5 Exploring Subtracting Across Zero
Unit 6.6 Relation between Addition and Subtraction
Unit 6.7 Write Subtraction Equations
Unit 6.8 Pictures and Equations for Problem Solving
Unit 6.9 Math Challenges

Lesson 7: Understanding Multiplication Facts and Meaning Part I

Unit 7.1 Understanding the Concept of Multiplication as Repeated Addition
Unit 7.2 Exploring Arrays and Multiplication
Unit 7.3 Applying Multiplication When Comparison
Unit 7.4 How to Write Multiplication Stories
Unit 7.5 Explaining How to Solve a Problem
Unit 7.6 Math Challenges

Lesson 8: Understanding Multiplication Facts and Meaning Part II

Unit 8.1 Using 2 and 5 as factors
Unit 8.2 Exploring 10 as a factor
Unit 8.3 Working with 9 as a factor
Unit 8.4 Multiplication with 0 and 1

Unit 8.5 Using Two-Questions to Solve Problems
Unit 8.6 Math Challenges
Review of Lesson 5, 6, 7, and 8

Lesson 9: Using Known Fact Strategies in Multiplication

Unit 9.1 Using 3 and 4 as Factors
Unit 9.2 Using 6 and 7 as Factors
Unit 9.3 Using 8 as a Factor
Unit 9.4 Using 11 and 12 as Factors
Unit 9.5 3-Factors Multiplication
Unit 9.6 Multiplication with Numbers Ending at Zero
Unit 9.7 Identifying Squares in Multiplication
Unit 9.8 Write and Compare Multiplication Facts
Unit 9.9 Math Challenges

Lesson 10: Understanding Meaning of Division

Unit 10.1 Introducing Division as Sharing
Unit 10.2 How to Understand Remainders
Unit 10.3 Introducing Division as Repeated Subtraction
Unit 10.4 How to Write Division Stories
Unit 10.5 Division by Finding Missing Number
Unit 10.6 Using Objects and Drawing Pictures in Problem Solving
Unit 10.7 Math Challenges

Lesson 11: Identifying Division Facts Part I

Unit 11.1 Exploring Relationships in Multiplication and Division
Unit 11.2 Computing Fact Families of 2, 3, 4, and 5
Unit 11.3 Computing Fact Families of 6 and 7
Unit 11.4 Computing Fact Families of 8 and 9
Unit 11.5 Math Challenges

Lesson 12: Identifying Division Facts Part II

Unit 12.1 Dividing the Numbers Ending at 0
Unit 12.2 Learning Division with 0 and with 1
Unit 12.3 Input and Output Tables
Unit 12.4 Identify the Larger and Smaller Quotients in Division Equations
Unit 12.5 Drawing Pictures and Writing Number Sentences to Solve Problems
Unit 12.6 Math Challenges
Review Section of Lesson 9, 10, 11, and 12

Lesson 13: Patterns and Relationships Exploration

Unit 13.1 Exploring Repeating Patterns
Unit 13.2 Applying Number Sentences
Unit 13.3 Using Extending Tables
Unit 13.4 Writing Rules for Situation in Identifying Patterns
Unit 13.5 Converting Word Expressions in Patterns
Unit 13.6 Finding Geometric Patterns
Unit 13.7 Equality or Inequality in Patterns
Unit 13.8 Acting Out and Using Reasoning in Problem Solving
Unit 13.9 Math Challenges

Lesson 14: Geometry: Solids and Shapes Part I

Unit 14.1 Identify Solids and Shapes
Unit 14.2 Relating Solids and Shapes in Geometry
Unit 14.3 Recognize, Count, and Compare Sides, Faces, and Vertices
Unit 14.4 Lines, Line Segments, and Rays
Unit 14.5 Angles and Their Types
Unit 14.6 Polygons
Unit 14.7 Triangles and Their Types
Unit 14.8 Quadrilaterals
Unit 14.9 Math challenges

Lesson 15: Geometry: Solids and Shapes Part II

Unit 15.1 Circle: Identifying Center, the Radius, and the Diameter of Circle
Unit 15.2 Flip and Slide Objects Horizontally and Vertically
Unit 15.3 Turn/Rotation about 90° and 180°
Unit 15.4 Making and Testing Generalizations in Problem Solving
Unit 15.5 Using Motion and Congruent Figures
Unit 15.6 Identifying Lines of Symmetry
Unit 15.7 Drawing Shapes with Lines of Symmetry
Unit 15.8 Using Objects in Problem Solving
Unit 15.9 Math Challenges

Lesson 16: Fractions Part I

Unit 16.1 Learning Fractions and Regions
Unit 16.2 Divide Regions into Parts
Unit 16.3 Exploring Fractions and Sets
Unit 16.4 Identifying Benchmark Fractions
Unit 16.5 Evaluate Equivalent Fractions
Unit 16.6 Compare Fractions Using Models

Unit 16.7 Math Challenges
Review of Lesson 13, 14, 15, and 16

## Lesson 17: Fractions Part II

Unit 17.1 Order Fractions
Unit 17.2 Compute Fraction Using Number Line
Unit 17.3 Apply Models for Fraction Addition
Unit 17.4 Apply Models for Fraction Subtraction
Unit 17.5 Find the Missing Numerator and Denominator
Unit 17.6 Reducing Fractions into Simplest Form
Unit 17.7 Making a Table and Looking for Patterns in Problem Solving
Unit 17.8 Math Challenges

## Lesson 18: Concepts of Decimals and Money Part I

Unit 18.1 Learning about Fractions and Decimals
Unit 18.2 Compare Decimal Numbers
Unit 18.3 Order Numbers Involving Decimals
Unit 18.4 Addition and Subtraction of Decimals
Unit 18.5 Use of Money to Learn Decimals
Unit 18.6 Math Challenges

## Lesson 19: Concepts of Decimals and Money Part II

Unit 19.1 Money: Addition and Subtraction
Unit 19.2 Price List and Money Needed to Purchase
Unit 19.3 Purchasing and Making Change
Unit 19.4 Drawing Pictures and Writing Number Sentences to Solve Problems
Unit 19.5 Using Missing or Extra Information in Problem Solving
Unit 19.6 Math Challenges

## Lesson 20: Measurement: Customary Units Part I

Unit 20.1 Understanding Measurement
Unit 20.2 Measure Length Using Fractions of an Inch
Unit 20.3 Using Inches, Feet, Yards, and Miles
Unit 20.4 Convert Customary Units of Length
Unit 20.5 Units of Capacity
Unit 20.6 Math Challenges
Review of Lesson 17, 18, 19, and 20

## Lesson 21: Measurement: Customary Units Part II

Unit 21.1 Convert Customary Units of Capacity
Unit 21.2 Units of Weight
Unit 21.3 Convert Customary Units of Weight
Unit 21.4 Using Reasoning to Solve Problems
Unit 21.5 Math Challenges

Lesson 22: Measurement: Metric Units

Unit 22.1 Measure Length, Centimeters, and Decimeters
Unit 22.2 Using Meters and Kilometers
Unit 22.3 Convert Metric Units of Length
Unit 22.4 Metric Units of Capacity
Unit 22.5 Convert Metric Units of Capacity
Unit 22.6 Measuring of Metric Units of Mass
Unit 22.7 Convert Metric Units of Mass
Unit 22.8 Choose Appropriate Units of Measurements
Unit 22.9 Making Tables and Looking for Patterns in Problem Solving
Unit 22.10 Math Challenges

Lesson 23: Measurement: Area, Perimeter, and Volume

Unit 23.1 Perimeter
Unit 23.2 Finding Perimeter of Common Shapes
Unit 23.3 Exploring Different Shapes with the Same Perimeter
Unit 23.4 Area
Unit 23.5 Estimating Area
Unit 23.6 Volume
Unit 23.7 Solving Simple Problems
Unit 23.8 Math Challenges

Lesson 24: Measurement: Time and Temperature

Unit 24.1 Reading Time in Half and Quarter Hours
Unit 24.2 Reading Time in Minutes
Unit 24.3 Understanding Unit of Time
Unit 24.4 Computing Elapsed time
Unit 24.5 Convert Times into Different Units
Unit 24.6 Convert Hours to Day and Conversely
Unit 24.7 Reading Time Schedule
Unit 24.8 Temperature
Unit 24.9 Read a Calendar
Unit 24.10 Working Backwards in Problem Solving
Unit 24.11 Math Challenges

Review of Lesson 21, 22, 23, and 24

Lesson 25: Multiplication: Larger Numbers

Unit 25.1 Multiplication Using Mental Math
Unit 25.2 Product Estimation
Unit 25.3 Exploring Array and Multiplication
Unit 25.4 Multiplication by Breaking Apart
Unit 25.5 Exploring Expanded Algorithms
Unit 25.6 Multiply 2-Digit Numbers and 3-Digit Numbers by 1-Digit Number
Unit 25.7 Multiplication Patterns over Increasing Place Values
Unit 25.8 Draw Pictures and Write Number Sentences to Solve Problems
Unit 25.9 Math Challenges

Lesson 26: Division: Single-Digit Number

Unit 26.1 Dividing Using Mental Math
Unit 26.2 Estimate Quotients
Unit 26.3 Exploration of Division and Connecting Models and Symbols
Unit 26.4 2-Digit Number Division
Unit 26.5 Division with remainders
Unit 26.6 Rule of Divisibility for 2, 3, and 5
Unit 26.7 Using Multi-Step Problems in Problem Solving
Unit 26.8 Math Challenges

Lesson 27: Exploring Data, Graphs, and Probability

Unit 27.1 How to Organize Data
Unit 27.2 Exploring Mixed Problem Solving
Unit 27.3 Reading and Drawing Pictographs
Unit 27.4 Reading and Drawing Bar Graphs
Unit 27.5 Using Ordered Pairs and Line Graphs
Unit 27.6 Certain, Likely, Unlikely, and Impossible
Unit 27.7 Predicting Outcomes from Experiments
Unit 27.8 Applying Line Plots and Experiments
Unit 27.9 Using Graphs and Tables to Draw Conclusions
Unit 27.10 Math Challenges

Review of Lesson 1 to 14
Review of Lesson 15 to 27