

# Table of Contents 

## Preview

GRADES 3-5
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## Into Math Table of Contents - Grade 3

| Unit 1: Understand Multiplication and Area |  |  |
| :---: | :---: | :---: |
|  | Lessons |  |
| Module 1-Understand Multiplication | 1.1 | Count Equal Groups |
|  | 1.2 | Relate Addition and Multiplication |
|  | 1.3 | Represent Multiplication with Arrays |
|  | 1.4 | Understand the Commutative Property of Multiplication |
|  | 1.5 | Represent Multiplication with Number Lines |
|  | 1.6 | Represent Multiplication with Bar Models |
|  | Lessons |  |
| Module 2-Relate Multiplication and Area | 2.1 | Understand Area by Counting Unit Squares |
|  | 2.2 | Measure Area by Counting Unit Squares |
|  | 2.3 | Relate Area to Addition and Multiplication |
|  | 2.4 | Solve Problems with Area |
|  | 2.5 | Find the Area of Combined Rectangles |
| Unit 2: Multiplication and Division |  |  |
|  | Lessons |  |
| Module 3-Understand Multiplication Strategies | 3.1 | Multiply with 2 and 4 |
|  | 3.2 | Multiply with 5 and 10 |
|  | 3.3 | Multiply with 3 and 6 |
|  | Lessons |  |
| Module 4-Apply Multiplication Properties as Strategies | 4.1 | Understand the Identity and Zero Properties of Multiplication |
|  | 4.2 | Understand the Distributive Property |
|  | 4.3 | Understand the Associative Property of Multiplication |
|  | 4.4 | Multiply with 7 |
|  | 4.5 | Multiply with 8 |
|  | 4.6 | Multiply with 9 |
|  | 4.7 | Identify Number Patterns on the Multiplication Table |
|  | Lessons |  |
| Module 5-Multiplication with Multiples of 10 | 5.1 | Use the Distributive Property |
|  | 5.2 | Use the Associative Property of Multiplication |
|  | 5.3 | Use Place Value Strategies to Multiply with Multiples of 10 |
|  | 5.4 | Multiply Multiples of 10 by 1 Digit |

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|  | Lessons |  |
| :---: | :---: | :---: |
| Module 6-Understand Division | 6.1 | Represent Division |
|  | 6.2 | Separate Objects into Equal Groups |
|  | 6.3 | Find the Number of Equal Groups |
|  | 6.4 | Relate Subtraction and Division |
|  | 6.5 | Represent Division with Arrays |
|  | 6.6 | Represent Division with Bar Models |
|  | 6.7 | Apply Division Rules for 1 and 0 |
|  | Lessons |  |
| Module 7-Relate Multiplication and Division | 7.1 | Relate Multiplication and Division |
|  | 7.2 | Write Related Facts |
|  | 7.3 | Multiply and Divide with 2, 4, and 8 |
|  | 7.4 | Multiply and Divide with 5 and 10 |
|  | 7.5 | Multiply and Divide with 3 and 6 |
|  | 7.6 | Multiply and Divide with 7 and 9 |
|  | 7.7 | Build Fluency with Multiplication and Division |
|  | Lessons |  |
| Module 8-Apply Multiplication and Division | 8.1 | Identify and Extend Patterns |
|  | 8.2 | Find Unknown Factors and Numbers |
|  | 8.3 | Use Multiplication and Division to Solve Problem Situations |
|  | 8.4 | Solve Two-Step Problems |
|  | 8.5 | Practice with One- and Two-Step Problems |
| Unit 3: Addition and Subtraction Strategies and Applications |  |  |
|  | Lessons |  |
| Module 9-Addition and Subtraction Strategies | 9.1 | Identify Number Patterns on the Addition Table |
|  | 9.2 | Use Mental Math Strategies for Addition and Subtraction |
|  | 9.3 | Use Properties to Add |
|  | 9.4 | Use Mental Math to Assess Reasonableness |
|  | 9.5 | Round to the Nearest Ten or Hundred |
|  | 9.6 | Use Estimation with Sums and Differences |

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|  | Lessons |  |
| :---: | :---: | :---: |
| Module 10-Addition and Subtraction Within 1,000 | 10.1 | Use Expanded Form to Add |
|  | 10.2 | Use Place Value to Add |
|  | 10.3 | Combine Place Values to Subtract |
|  | 10.4 | Use Place Value to Subtract |
|  | 10.5 | Choose a Strategy to Add or Subtract |
|  | 10.6 | Model and Solve Two-Step Problems |
|  | Lessons |  |
| Module 11-Understand Perimeter | 11.1 | Describe Perimeter |
|  | 11.2 | Find Perimeter |
|  | 11.3 | Find Unknown Side Lengths |
|  | 11.4 | Represent Rectangles with the Same Area and Different Perimeters |
|  | 11.5 | Represent Rectangles with the Same Perimeter and Different Areas |
|  | Lessons |  |
| Module 12-Time <br> Measurement and Intervals | 12.1 | Tell and Write Time to the Minute |
|  | 12.2 | Use a.m. and p.m. to Describe Time |
|  | 12.3 | Measure Time Intervals |
|  | 12.4 | Find Start and End Times |
|  | 12.5 | Solve Time Interval Problems |
|  |  | Unit 4: Fractions |
|  | Lessons |  |
| Module 13-Understand Fractions as Numbers | 13.1 | Describe Equal Parts of a Whole |
|  | 13.2 | Represent and Name Unit Fractions |
|  | 13.3 | Represent and Name Fractions of a Whole |
|  | 13.4 | Represent and Name Fractions on a Number Line |
|  | 13.5 | Express Whole Numbers as Fractions |
|  | 13.6 | Represent and Name Fractions Greater Than 1 |
|  | 13.7 | Use Fractions to Measure Lengths |
|  | Lessons |  |
| Module 14-Relate Shapes, Fractions, and Area | 14.1 | Relate Fractions and Area |
|  | 14.2 | Partition Shapes into Equal Areas |
|  | 14.3 | Use Unit Fractions to Describe Area |
|  | Lessons |  |
| Module 15-Compare Fractions | 15.1 | Compare Fractions Using Concrete and Visual Models |
|  | 15.2 | Compare Fractions with the Same Denominator |
|  | 15.3 | Compare Fractions with the Same Numerator |
|  | 15.4 | Use Reasoning Strategies to Compare Fractions |

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## Into Math Table of Contents - Grade 4

| Unit 1: Place Value and Whole Number Operations |  |  |
| :---: | :---: | :---: |
|  | Lessons |  |
| Module 1-Place Value of Whole Numbers | 1.1 | Understand Place Value Relationships |
|  | 1.2 | Read and Write Numbers |
|  | 1.3 | Regroup and Rename Numbers |
|  | 1.4 | Compare and Order Numbers |
|  | 1.5 | Use Place Value Understanding to Round Numbers |
|  | Lessons |  |
| Module 2-Addition and Subtraction of Whole Numbers | 2.1 | Add Whole Numbers and Assess Reasonableness |
|  | 2.2 | Subtract Whole Numbers and Assess Reasonableness |
|  | 2.3 | Use Addition and Subtraction to Solve Comparison Problems |
|  | 2.4 | Apply the Perimeter Formula for Rectangles |
| Unit 2: Multiplication and Division Problems |  |  |
|  | Lessons |  |
| Module 3-Interpret and Solve Problem Situations | 3.1 | Explore Multiplicative Comparisons |
|  | 3.2 | Distinguish Between Multiplicative and Additive Comparisons |
|  | 3.3 | Use Division to Solve Multiplicative Comparison Problems |
|  | 3.4 | Use Comparisons to Solve Problem Situations |
|  | 3.5 | Solve Multistep Problems with Multiplication and Division |
|  | Lessons |  |
| Module 4-Mental Math and Estimation Strategies | 4.1 | Explore Multiplication Patterns with Tens, Hundreds, and Thousands |
|  | 4.2 | Explore Division Patterns with Tens, Hundreds, and Thousands |
|  | 4.3 | Estimate Products by 1-Digit Numbers |
|  | 4.4 | Estimate Quotients Using Compatible Numbers |
|  | 4.5 | Use Mental Math Strategies for Multiplication and Division |
|  | Lessons |  |
| Module 5-Multiply by 1-Digit Numbers | 5.1 | Represent Multiplication |
|  | 5.2 | Use Area Models and the Distributive Property to Multiply |
|  | 5.3 | Multiply Using Expanded Form |
|  | 5.4 | Multiply Using Partial Products |
|  | 5.5 | Use Place Value to Multiply 2-Digit Numbers |
|  | 5.6 | Multiply 3-Digit and 4-Digit Numbers |
|  | 5.7 | Use Equations to Solve Multistep Problems |

## Into Math Table of Contents - Grade 4

|  | Lessons |  |
| :---: | :---: | :---: |
| Module 6-Understand Division by 1-Digit Numbers | 6.1 | Represent Division |
|  | 6.2 | Investigate Remainders |
|  | 6.3 | Interpret Remainders |
|  | 6.4 | Use Area Models and the Distributive Property to Divide |
|  | 6.5 | Divide Using Repeated Subtraction |
|  | 6.6 | Divide Using Partial Quotients |
|  | Lessons |  |
| Module 7-Divide by 1-Digit Numbers | 7.1 | Represent Division with Regrouping |
|  | 7.2 | Use Place Value to Divide |
|  | 7.3 | Divide by 1-Digit Numbers |
|  | 7.4 | Solve Multistep Multiplication and Division Problems |
| Unit 3: Extend and Apply Multiplication |  |  |
|  | Lessons |  |
| Module 8-Multiply by 2-Digit Numbers | 8.1 | Multiply with Tens |
|  | 8.2 | Estimate Products |
|  | 8.3 | Relate Area Models and Partial Products |
|  | 8.4 | Multiply Using Partial Products |
|  | 8.5 | Multiply with Regrouping |
|  | 8.6 | Choose a Multiplication Strategy |
|  | 8.7 | Solve Multistep Problems and Assess Reasonableness |
|  | Lessons |  |
| Module 9-Apply Multiplication to Area | 9.1 | Apply the Area Formula to Rectangles |
|  | 9.2 | Find the Area of Combined Rectangles |
|  | 9.3 | Find Unknown Measures |
|  | 9.4 | Solve Area Problems |
| Unit 4: Fractions and Decimals |  |  |
|  | Lessons |  |
| Module 10-Algebraic <br> Thinking: Number Theory | 10.1 | Investigate Factors |
|  | 10.2 | Identify Factors |
|  | 10.3 | Generate Multiples Using Factors |
|  | 10.4 | Identify Prime and Composite Numbers |
|  | 10.5 | Generate and Analyze Number Patterns |

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|  | Lessons |  |
| :---: | :---: | :---: |
| Module 11-Fraction Equivalence and Comparison | 11.1 | Compare Fractions Using Visual Models |
|  | 11.2 | Compare Fractions Using Benchmarks |
|  | 11.3 | Explain Fraction Equivalence Using Visual Models |
|  | 11.4 | Generate Equivalent Fractions |
|  | 11.5 | Use Common Multiples to Write Equivalent Fractions |
|  | 11.6 | Compare Fractions Using Common Numerators and Denominators |
|  | 11.7 | Use Comparisons to Order Fractions |
|  | Lessons |  |
| Module 12-Relate Fractions and Decimals | 12.1 | Represent Tenths as Fractions and Decimals |
|  | 12.2 | Represent Hundredths as Fractions and Decimals |
|  | 12.3 | Identify Equivalent Fractions and Decimals |
|  | 12.4 | Compare Decimals |
|  | 12.5 | Relate Fractions, Decimals, and Money |
|  | 12.6 | Solve Multistep Money Problems |
|  | Lessons |  |
| Module 13-Use Fractions to Understand Angles | 13.1 | Explore Lines, Rays, and Angles |
|  | 13.2 | Explore Angles |
|  | 13.3 | Relate Angles to Fractional Parts of a Circle |
|  | 13.4 | Relate Degrees to Fractional Parts of a Circle |
|  | 13.5 | Measure and Draw Angles Using a Protractor |
|  | 13.6 | Join and Separate Angles |
|  | 13.7 | Find Unknown Angle Measures |
| Unit 5: Operations with Fractions |  |  |
|  | Lessons |  |
| Module 14-Understand Addition and Subtraction of Fractions with Like Denominators | 14.1 | Decompose Fractions into Sums |
|  | 14.2 | Join Parts of a the Same Whole |
|  | 14.3 | Represent Addition of Fractions |
|  | 14.4 | Separate Parts of the Same Whole |
|  | 14.5 | Represent Subtraction of Fractions |
|  | 14.6 | Add Fractional Parts of 10 and 100 |
|  | Lessons |  |
| Module 15-Add and Subtract Fractions and Mixed Numbers with Like Denominators | 15.1 | Add and Subtract Fractions to Solve Problems |
|  | 15.2 | Rename Fractions and Mixed Numbers |
|  | 15.3 | Add and Subtract Mixed Numbers to Solve Problems |
|  | 15.4 | Rename Mixed Numbers to Subtract |
|  | 15.5 | Apply Properties of Addition to Add Fractions and Mixed Numbers |
|  | 15.6 | Practice Solving Fraction Problems |

## Into Math Table of Contents - Grade 4

|  | Lessons |  |
| :---: | :---: | :---: |
| Module 16-Multiply Fractions by Whole Numbers | 16.1 | Understand Multiples of Unit Fractions |
|  | 16.2 | Find Multiples of Fractions |
|  | 16.3 | Represent Multiplication of a Fraction by a Whole Number |
|  | 16.4 | Solve Problems Using Multiplication of a Fraction or Mixed Number by a Whole Number |
| Unit 6: Two-Dimensional Figures and Symmetry |  |  |
|  | Lessons |  |
| Module 17-TwoDimensional Figures | 17.1 | Identify and Draw Perpendicular and Parallel Lines |
|  | 17.2 | Identify and Classify Triangles by Angles |
|  | 17.3 | Identify and Classify Triangles by Sides |
|  | 17.4 | Identify and Classify Quadrilaterals |
|  | 17.5 | Measure and Draw Angles of Two-Dimensional Figures |
|  | Lessons |  |
| Module 18-Symmetry and Patterns | 18.1 | Recognize Lines of Symmetry |
|  | 18.2 | Identify and Draw Lines of Symmetry |
|  | 18.3 | Generate and Identify Shape Patterns |
| Unit 7: Measurement, Data, and Time |  |  |
|  | Lessons |  |
| Module 19—Relative Sizes of Customary Measurement Units | 19.1 | Identify Customary Measurement Benchmarks |
|  | 19.2 | Compare Customary Units of Length |
|  | 19.3 | Compare Customary Units of Weight |
|  | 19.4 | Compare Customary Units of Liquid Volume |
|  | 19.5 | Represent and Interpret Measurement Data in Line Plots |
|  | Lessons |  |
| Module 20-Relative Sizes of Metric Measurement Units | 20.1 | Identify Metric Measurement Benchmarks |
|  | 20.2 | Compare Metric Units of Length |
|  | 20.3 | Compare Metric Units of Mass and Liquid Volume |
|  | 20.4 | Solve Problems Using Measurements |
|  | Lessons |  |
| Module 21-Solve Problems with Time and Measurement | 21.1 | Compare Units of Time |
|  | 21.2 | Solve Problems Involving Elapsed Time |
|  | 21.3 | Solve Problems Involving Start Time and End Time |
|  | 21.4 | Practice with Mixed Measures |

## Into Math Table of Contents - Grade 5

| Unit 1: Whole Numbers, Expressions, and Volume |  |  |
| :---: | :---: | :---: |
|  | Lessons |  |
| Module 1-Whole Number Place Value and Multiplication | 1.1 | Recognize the 10 to 1 Relationship Among Place-Value Positions |
|  | 1.2 | Use Powers of 10 and Exponents |
|  | 1.3 | Use a Pattern to Multiply by Multiples of 10, 100, and 1,000 |
|  | 1.4 | Multiply by 1-Digit Numbers |
|  | 1.5 | Multiply by Multi-Digit Numbers |
|  | 1.6 | Develop Multiplication Fluency |
|  | Lessons |  |
| Module 2-Understand <br> Division of Whole Numbers | 2.1 | Relate Multiplication to Division |
|  | 2.2 | Represent Division with 2-Digit Divisors |
|  | 2.3 | Estimate with 2-Digit Divisors |
|  | 2.4 | Use Partial Quotients |
|  | Lessons |  |
| Module 3-Practice Division of Whole Numbers | 3.1 | Divide by 2-Digit Divisors |
|  | 3.2 | Interpret the Remainder |
|  | 3.3 | Adjust Quotients |
|  | 3.4 | Practice with Division |
|  | Lessons |  |
| Module 4-Expressions | 4.1 | Write Numerical Expressions |
|  | 4.2 | Interpret Numerical Expressions |
|  | 4.3 | Evaluate Numerical Expressions |
|  | 4.4 | Use Grouping Symbols |
|  | Lessons |  |
| Module 5-Volume | 5.1 | Use Unit Cubes to Build Solid Figures |
|  | 5.2 | Understand Volume |
|  | 5.3 | Estimate Volume |
|  | 5.4 | Find Volume of Right Rectangular Prisms |
|  | 5.5 | Apply Volume Formulas |
|  | 5.6 | Find Volume of Composed Figures |
| Unit 2: Add and Subtract Fractions and Mixed Numbers |  |  |
|  | Lessons |  |
| Module 6-Understand Addition and Subtraction of Fractions with Unlike Denominators | 6.1 | Represent Fraction Sums and Differences |
|  | 6.2 | Represent Addition with Different-Sized Parts |
|  | 6.3 | Represent Subtraction with Different-Sized Parts |
|  | 6.4 | Rewrite Fractions with a Common Denominator |

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|  | Lessons |  |
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| Module 7-Add and Subtract Fractions and Mixed Numbers with Unlike Denominators | 7.1 | Use Benchmarks and Number Sense to Estimate |
|  | 7.2 | Assess Reasonableness of Fraction Sums and Differences |
|  | 7.3 | Assess Reasonableness of Mixed Number Sums and Differences |
|  | 7.4 | Rename Mixed Numbers to Subtract |
|  | 7.5 | Apply Properties of Addition |
|  | 7.6 | Practice Addition and Subtraction Using Equations |
| Unit 3: Multiply Fractions and Mixed Numbers |  |  |
|  | Lessons |  |
| Module 8-Understand Multiplication of Fractions | 8.1 | Explore Groups of Equal Shares to Show Multiplication |
|  | 8.2 | Represent Multiplication of Whole Numbers by Fractions |
|  | 8.3 | Represent Multiplication with Unit Fractions |
|  | 8.4 | Represent Multiplication of Fractions |
|  | 8.5 | Use Representations of Area to Develop Procedures |
|  | 8.6 | Interpret Fraction Multiplication as Scaling |
|  | 8.7 | Multiply Fractions |
|  | Lessons |  |
| Module 9-Understand and Apply Multiplication of Mixed Numbers | 9.1 | Explore Area and Mixed Numbers |
|  | 9.2 | Multiply Mixed Numbers |
|  | 9.3 | Practice Multiplication with Fractions and Mixed Numbers |
|  | 9.4 | Apply Fraction Multiplication to Find Area |
| Unit 4: Divide Fractions and Convert Customary Units |  |  |
|  | Lessons |  |
| Module 10-Understand Division with Whole Numbers and Unit Fractions | 10.1 | Interpret a Fraction as Division |
|  | 10.2 | Represent and Find the Size of Equal Parts |
|  | 10.3 | Use Representations of Division of Unit Fractions by Whole Numbers |
|  | 10.4 | Represent and Find the Number of Equal-Sized Parts |
|  | 10.5 | Use Representations of Division of Whole Numbers by Unit Fractions |

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|  | Lessons |  |
| :---: | :---: | :---: |
| Module 11-Divide with Whole Numbers and Unit Fractions | 11.1 | Relate Multiplication and Division of Fractions |
|  | 11.2 | Divide Whole Numbers by Unit Fractions |
|  | 11.3 | Interpret and Solve Division of a Whole Number by a Unit Fraction |
|  | 11.4 | Divide Unit Fractions by Whole Numbers |
|  | 11.5 | Interpret and Solve Division of a Unit Fraction by a Whole Number |
|  | 11.6 | Solve Division Problems Using Visual Models and Equations |
|  | Lessons |  |
| Module 12-Customary Measurement | 12.1 | Convert Customary Measurements |
|  | 12.2 | Solve Multistep Customary Measurement Problems |
|  | 12.3 | Represent and Interpret Measurement Data in Line Plots |
|  | 12.4 | Convert Time and Find Elapsed Time |
| Unit 5: Add and Subtract Decimals |  |  |
|  | Lessons |  |
| Module 13-Decimal Place Value | 13.1 | Understand Thousandths |
|  | 13.2 | Read and Write Decimals to Thousandths |
|  | 13.3 | Round Decimals |
|  | 13.4 | Compare and Order Decimals |
|  | Lessons |  |
| Module 14-Add and Subtract Decimals | 14.1 | Represent Decimal Addition |
|  | 14.2 | Represent Decimal Subtraction |
|  | 14.3 | Assess Reasonableness of Sums and Differences |
|  | 14.4 | Add Decimals |
|  | 14.5 | Subtract Decimals |
|  | 14.6 | Use Strategies and Reasoning to Add and Subtract |
| Unit 6: Multiply Decimals |  |  |
|  | Lessons |  |
| Module 15-Multiply Decimals and Whole Numbers | 15.1 | Understand Decimal Multiplication Patterns |
|  | 15.2 | Represent Multiplication with Decimals and Whole Numbers |
|  | 15.3 | Assess Reasonableness of Products |
|  | 15.4 | Multiply Decimals by 1-Dlgit Whole Numbers |
|  | 15.5 | Multiply Decimals by 2-Digit Whole Numbers |
|  | 15.6 | Solve Problems Using Bar Models |

## Into Math Table of Contents - Grade 5

|  | Lessons |  |
| :---: | :---: | :---: |
| Module 16-Multiply Decimals | 16.1 | Represent Decimal Multiplication |
|  | 16.2 | Multiply Decimals |
|  | 16.3 | Multiply Decimals with Zeros in the Product |
| Unit 7: Divide Decimals and Convert Metric Units |  |  |
|  | Lessons |  |
| Module 17-Divide Decimals | 17.1 | Understand Decimal Division Patterns |
|  | 17.2 | Represent Division of Decimals by Whole Numbers |
|  | 17.3 | Assess Reasonableness of Quotients |
|  | 17.4 | Divide Decimals by Whole Numbers |
|  | 17.5 | Represent Decimal Division |
|  | 17.6 | Divide Decimals |
|  | 17.7 | Write Zeros in the Dividend |
|  | Lessons |  |
| Module 18-Customary and Metric Measurement | 18.1 | Understand Metric Conversions |
|  | 18.2 | Solve Customary and Metric Conversion Problems |
|  | 18.3 | Solve Multistep Measurement Problems |
| Unit 8: Graphs, Patterns, and Geometry |  |  |
|  | Lessons |  |
| Module 19-Graphs and Patterns | 19.1 | Describe a Coordinate System |
|  | 19.2 | Understand Ordered Pairs |
|  | 19.3 | Use Ordered Pairs to Represent Problems |
|  | 19.4 | Generate and Identify Numerical Patterns |
|  | 19.5 | Identify and Graph Relationships and Patterns |
|  | Lessons |  |
| Module 20-Classify Two-Dimensional Figures | 20.1 | Identify and Classify Polygons |
|  | 20.2 | Classify and Organize Triangles |
|  | 20.3 | Classify and Organize Quadrilaterals |
|  | 20.4 | Use Venn Diagrams to Classify Two-Dimensional Figures |

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