## Syllabus

Grade 4 Mathematics
Grade 4 Mathematics is a comprehensive course that strengthens students' math through hands-on activities, problem-solving, and engaging learning experiences. Topics covered include place value, fractions, decimals, patterns, addition, subtraction, multiplication, division, geometry, measurement, and data analysis. The course fosters critical thinking, logical reasoning, and communication skills, providing a solid foundation for future math learning and real-world applications. Regular assessments track progress and ensure concept mastery.

Time Commitment: This 32-week ( 53 lesson) course includes 2 in-class hours each week and 1-2 hours of homework each lesson, corresponding to a full-year course.

Grading: 5\% Class Participation, 10\% Homework, 15\% Classwork, 33\% Quizzes, 37\% Assessments.
Content: Note: An extra class is added at the end of each unit for review and assessment of the material learned.

\begin{tabular}{|c|c|c|c|}
\hline Unit \& Name \& Lessons \& Length \\
\hline 1 \& Place Value \& Rounding \& \begin{tabular}{l}
- Lesson 1-1: Place Value Understanding \\
- Lesson 1-2: Reading Numbers, Values of Digits \\
- Lesson 1-3: Expanded Form and Comparing Numbers \\
- Lesson 1-4: Ordering Numbers and Rounding Numbers
\end{tabular} \& 2.5 weeks \\
\hline 2 \& Addition and Subtraction \& \begin{tabular}{l}
- Lesson 2-1: Adding Using P.V Charts \& Standard Algorithm \\
- Lesson 2-2: Addition Word Problems \& Subtract with PV Charts \\
- Lesson 2-3: Standard Algorithm for Subtraction and Regrouping \\
- Lesson 2-4: Subtraction Word Problems \& Multi-Step Problems
\end{tabular} \& 2.5 weeks \\
\hline 3

4 \& Multiplication \& | - Lesson 3-1: Patterns \& Multiplying by 10, 100, \& 1,000 |
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| - Lesson 3-2: Multiplication w/ 2 Multiples Of 10 \& Estimating Products |
| - Lesson 3-3: Area Model and Product Estimation |
| - Lesson 3-4: 2 Digit Area Models |
| - Lesson 4-1: Remainders |
| - Lesson 4-2: Dividing by Base 10 \& Estimating Quotients |
| - Lesson 4-3: Dividing with Area Models |
| - Lesson 4-4: Dividing with Partial Quotients |
| - Lesson 4-5: Dividing using the Standard Algorithm |
| - Lesson 4-6: Problem Solving with Multiplication \& Division | \& 2.5 weeks <br>

\hline 5 \& Factors, Multiples \& Patterns \& | - Lesson 5-1: Factors and Divisibility Rules |
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| - Lesson 5-2: Factors vs Multiples |
| - Lesson 5-3: Prime, Composite, and Generating Patterns |
| - Lesson 5-4: Number and Shape Patterns | \& 2.5 weeks <br>


\hline 6 \& Fractions, Comparing, and More \& | - Lesson 6-1: Equivalent Fractions using Visual Models \& Number Lines |
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| - Lesson 6-2: Equivalent Fractions and Simplest Form. |
| - Lesson 6-3: Comparing Fractions |
| - Lesson 6-4: Comparing Fractions and Converting Mixed Numbers |
| - Lesson 6-5: Converting Improper Fractions | \& 3 weeks <br>

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- Lesson 7-1: Decomposing Fractions \& Adding Fractions (L1-5)
- Lesson 7-2: Fraction Subtraction using Models \& Standard Algorithm
- Lesson 7-3: Problem Solving and Adding Mixed Numbers w/
- Lesson 7-3: Problem Solving and Adding Mixed Numbers w/ Models.
- Lesson 7-4: Adding (cont.) and Subtracting Mixed Numbers
- Lesson 7-5: Problem Solving and Further Practice
- Lesson 8-1: Understanding Fractional Concepts

8
Fraction Operations
(Multiply)

- Lesson 8-2: Multiply Fractions
- Lesson 8-3: Equivalent Problems \& Multiplying Mixed Numbers
- Lesson 8-4: Problem Solving
- Lesson 9-1: Equivalent Decimal Fractions \& Adding Decimals (Pt. 1)
- Lesson 9-2: Adding Decimals (Pt. 2) \& Decimal Notation (tenths)
- Lesson 9-3: Decimal Notation and Number lines - Hundredths
- Lesson 9-4: Decimal Notation Practice \& Comparing Place Value
- Lesson 10-1: Geometric Terms \& Types of Angles
- Lesson 10-2: Types of Lines \& Classifying Triangles (by angle)
- Lesson 10-3: Classifying Triangles (by sides) \& Classifying Quad
- Lesson 10-4: Symmetry
- Lesson 10-5: Measuring Angles \& Using a Protractor
- Lesson 10-6: Unknown Angles
- Lesson 11-1: Estimating using Customary and Metric System
- Lesson 11-2: Converting Length using Customary and Metric Systems
- Lesson 11-3: Coverting Mass \& Volume using Customary \& Metric
- Lesson 11-4: Customary Volume Conversions \& Further Practice
- Lesson 11-5: Converting Time \& Customary Problem Solving
- Lesson 11-6: Area and Perimeter: Formulas \& Unknown Sides
- Lesson 11-7: Constructing and Interpreting Line Plots

