

Course Description:

Grade 4 math uses a varied amount of instructional material to reinforce and teach new math skills to the 4th grade learners. Instruction includes creative videos, mathematical storytelling, practical math applications and repetition to reinforce skills throughout the course. Three areas are focused on and students will finish the course with a strong knowledge in these content areas. The first is developing an understanding and fluency with multi-digit multiplication, and developing the understanding of dividing to find quotients involving multi-digit dividends. The second is developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions with whole numbers. The third will be addressed in semester B.

Materials Needed: Scissors, Graph paper, Markers, Ruler

Module	Lesson Title	Objectives	Assessments
1	Writing Multiplication	<ul style="list-style-type: none"> Identify and write multiplicative equations. 	<ul style="list-style-type: none"> Writing Multiplication Quiz
	Multiplication Comparison	<ul style="list-style-type: none"> Make multiplicative comparisons. 	<ul style="list-style-type: none"> Multiplication Comparison Quiz
	Solving Basic Equations	<ul style="list-style-type: none"> Solve basic multiplication equations for an unknown. 	<ul style="list-style-type: none"> Solving Basic Equations Quiz
	Parts of a Word Problem	<ul style="list-style-type: none"> Identify the known and unknown parts of a word problem. 	<ul style="list-style-type: none"> Parts of a Word Problem Quiz
	Translation into Equations	<ul style="list-style-type: none"> Translate comparative situations into equations with an unknown and solve. 	<ul style="list-style-type: none"> Translation into Equations Quiz
	Interpretation	<ul style="list-style-type: none"> Interpret word problems. 	<ul style="list-style-type: none"> Interpretation Quiz
	Estimation Strategies	<ul style="list-style-type: none"> Use acceptable estimation strategies and justify the solution. 	<ul style="list-style-type: none"> Estimation Strategies Quiz
	Remainders	<ul style="list-style-type: none"> Add two multi-digit whole numbers with accuracy, efficiency and flexibility. 	<ul style="list-style-type: none"> Remainders Quiz
Module 1 Exam			

Module	Lesson Title	Objectives	Assessments
2	Factoring	<ul style="list-style-type: none"> Find factors of whole numbers. 	<ul style="list-style-type: none"> Factoring Quiz
	Prime Numbers	<ul style="list-style-type: none"> Use factoring rules to classify numbers as prime and justify answer. 	<ul style="list-style-type: none"> Prime Numbers Quiz
	Common Multiples	<ul style="list-style-type: none"> Find multiples of whole numbers. 	<ul style="list-style-type: none"> Common Multiples Quiz
	Composite Numbers	<ul style="list-style-type: none"> Use factoring rules to classify numbers as composite, and justify answers. 	<ul style="list-style-type: none"> Composite Numbers Quiz
	Basic Patterns	<ul style="list-style-type: none"> Identify attributes that determine a pattern. 	<ul style="list-style-type: none"> Basic Patterns Quiz
	Arithmetic Number Patterns	<ul style="list-style-type: none"> Identify number patterns. 	<ul style="list-style-type: none"> Arithmetic Number Patterns Quiz
	T-Charts	<ul style="list-style-type: none"> Use a t-chart to identify number patterns. 	<ul style="list-style-type: none"> T-Charts Quiz
	Rounding	<ul style="list-style-type: none"> Round numbers to the nearest tens and hundreds place. 	<ul style="list-style-type: none"> Rounding Quiz
	Estimating	<ul style="list-style-type: none"> Use rounding to make estimates. 	<ul style="list-style-type: none"> Estimating Quiz
	Place Value	<ul style="list-style-type: none"> Identify place value in multi-digit whole numbers. 	<ul style="list-style-type: none"> Place Value Quiz
	Multiplying by 10 and 100	<ul style="list-style-type: none"> Multiply by 10 and 100. 	<ul style="list-style-type: none"> Multiplying by 10 and 100 Quiz
Module 2 Exam			
3	Expanded Form	<ul style="list-style-type: none"> Read and write numbers using expanded form. 	<ul style="list-style-type: none"> Expanded Form Quiz
	Rounding to Hundreds and Thousands	<ul style="list-style-type: none"> Using a number line, round answers to the nearest 100 and 1000 place. 	<ul style="list-style-type: none"> Rounding to Hundreds and Thousands Quiz

Module	Lesson Title	Objectives	Assessments
	Hundreds Chart	<ul style="list-style-type: none"> Using a hundreds chart, round answers to the nearest 100 and 1000 place. 	<ul style="list-style-type: none"> Hundreds Chart Quiz
	Comparison	<ul style="list-style-type: none"> Compare two multi-digit whole numbers. 	<ul style="list-style-type: none"> Comparison Quiz
	Adding Two Whole Numbers	<ul style="list-style-type: none"> Add two multi-digit whole numbers with accuracy, efficiency and flexibility. 	<ul style="list-style-type: none"> Adding Two Whole Numbers Quiz
	Adding Several Whole Numbers	<ul style="list-style-type: none"> Add several multi-digit whole numbers with accuracy, efficiency and flexibility. 	<ul style="list-style-type: none"> Adding Several Whole Numbers Quiz
	Re-grouping	<ul style="list-style-type: none"> Add multi-digit whole numbers using a re-grouping strategy. 	<ul style="list-style-type: none"> Re-grouping Quiz
	Subtraction Skills	<ul style="list-style-type: none"> Subtract multi-digit whole numbers with accuracy, efficiency and flexibility. 	<ul style="list-style-type: none"> Subtraction Skills Quiz
	Subtraction with Zeros	<ul style="list-style-type: none"> Subtract multi-digit whole numbers with accuracy, efficiency and flexibility. Apply knowledge of subtraction to solve word problems. 	<ul style="list-style-type: none"> Subtraction with Zeros Quiz
	Module 3 Exam		
4	Clustering	<ul style="list-style-type: none"> Multiply numbers using clustering. 	<ul style="list-style-type: none"> Clustering Quiz
	Regrouping Multiplication	<ul style="list-style-type: none"> Multiply numbers using re-grouping. 	<ul style="list-style-type: none"> Regrouping Multiplication Quiz
	Multiplying with Arrays	<ul style="list-style-type: none"> Multiply numbers using the arrays model. 	<ul style="list-style-type: none"> Multiplying with Arrays Quiz
	Applications of Multiplication	<ul style="list-style-type: none"> Apply any of the multiplication strategies to solve real-life problems. 	<ul style="list-style-type: none"> Applications of Multiplication Quiz Multiplication Strategies Lesson Quiz
	Long Division	<ul style="list-style-type: none"> Divide numbers using a traditional algorithm. 	<ul style="list-style-type: none"> Long Division Quiz
	Dividing Using Grouping	<ul style="list-style-type: none"> Divide numbers using groups for the divisor. 	<ul style="list-style-type: none"> Dividing Using Grouping Quiz

Module	Lesson Title	Objectives	Assessments
	Area Model	<ul style="list-style-type: none"> Divide numbers using area models. 	<ul style="list-style-type: none"> Area Model Quiz
	Application of Division Strategies	<ul style="list-style-type: none"> Apply any of the division strategies to solve real-life problems. 	<ul style="list-style-type: none"> Application of Division Strategies Quiz Division Strategies Lesson Quiz
	Fraction Parts	<ul style="list-style-type: none"> Define fraction, numerator, denominator, fraction bar. 	<ul style="list-style-type: none"> Fraction Parts Quiz
	Fraction Shape	<ul style="list-style-type: none"> Identify the number of shaded parts and the number of equal parts in a shape (circle, rectangle). 	<ul style="list-style-type: none"> Fraction Shape Quiz
	Writing Fractions	<ul style="list-style-type: none"> Write a fraction using mathematical notation and using words. 	<ul style="list-style-type: none"> Writing Fractions Quiz Modeling Fractions Lesson Quiz
5	Dividing Number Lines	<ul style="list-style-type: none"> Divide a number line into parts (fractions). 	<ul style="list-style-type: none"> Dividing Number Lines Quiz
	Identifying Fractions on a Number Line	<ul style="list-style-type: none"> Locate fractions on a number line. 	<ul style="list-style-type: none"> Identifying Fractions on a Number Line Quiz
	Equivalent Fractions	<ul style="list-style-type: none"> Find equivalent fractions using models. Find equivalent fractions using multiplication. Find equivalent fractions using division. 	<ul style="list-style-type: none"> Equivalent Fractions Quiz
	Common Denominators	<ul style="list-style-type: none"> Create common denominators by multiplication to form equivalent fractions. 	<ul style="list-style-type: none"> Common Denominators Quiz
	Greatest Common Factor	<ul style="list-style-type: none"> Determine the greatest common factors of whole numbers. 	<ul style="list-style-type: none"> Greatest Common Factor Quiz
	Least Common Multiple	<ul style="list-style-type: none"> Determine the least common multiple of whole numbers. 	<ul style="list-style-type: none"> Least Common Multiple Quiz
	Module 5 Exam		
6	Adding Like Fractions	<ul style="list-style-type: none"> Add like fractions. 	<ul style="list-style-type: none"> Adding Like Fractions Quiz

Module	Lesson Title	Objectives	Assessments
	Adding Mixed Numbers	<ul style="list-style-type: none"> Add mixed numbers. 	<ul style="list-style-type: none"> Adding Mixed Numbers Quiz
	Improper Fractions in Mixed Numbers	<ul style="list-style-type: none"> Add improper fractions in mixed numbers. 	<ul style="list-style-type: none"> Improper Fractions in Mixed Numbers Quiz
	Adding Unlike Fractions	<ul style="list-style-type: none"> Add unlike fractions. 	<ul style="list-style-type: none"> Adding Unlike Fractions Quiz
	Subtracting Like Fractions	<ul style="list-style-type: none"> Subtract like fractions. 	<ul style="list-style-type: none"> Subtracting Like Fractions Quiz
	Subtracting Unlike Fractions	<ul style="list-style-type: none"> Subtract unlike fractions. 	<ul style="list-style-type: none"> Subtracting Unlike Fractions Quiz
	Subtracting Mixed Numbers	<ul style="list-style-type: none"> Subtract mixed numbers. 	<ul style="list-style-type: none"> Subtracting Mixed Numbers Quiz
	Subtracting Improper Fractions	<ul style="list-style-type: none"> Subtract improper fractions. 	<ul style="list-style-type: none"> Subtracting Improper Fractions Quiz
	Dividing Fractions Using Reciprocals	<ul style="list-style-type: none"> Divide fractions using reciprocals. 	<ul style="list-style-type: none"> Dividing Fractions Using Reciprocals Quiz
	Dividing Fractions Using Modeling	<ul style="list-style-type: none"> Divide fractions using models. 	<ul style="list-style-type: none"> Dividing Fractions Using Modeling Quiz
	Dividing Whole Numbers into Fractions	<ul style="list-style-type: none"> Divide whole numbers and fractions. 	<ul style="list-style-type: none"> Dividing Whole Numbers into Fractions Quiz
	Dividing Mixed Numbers	<ul style="list-style-type: none"> Divide whole numbers and mixed numbers. 	<ul style="list-style-type: none"> Dividing Mixed Numbers Quiz
Module 6 Exam			