MCRUFFY KINDERGARTEN MATH

The McRuffy Kindergarten Math Program has 160 lessons. These lessons will be completed during the kindergarten year, approximately 1 lesson per day, leaving 20 extra days. These 20 days will be spent giving more time to a concept not easily mastered, reviewing at the start of the year and end of year, and with enrichment activities that show themselves to be of value. An approximate schedule of lesson coverage is below. Specific math content covered for the year, is below that.

September: Lessons 1 - 15
October: Lessons 16 - 35
November: Lessons 36 - 52
December: Lessons 53 - 66
January: Lessons 66 - 84
February: Lessons 85 - 102
March: Lessons 103 - 118
April: Lessons 119 - 136
May: Lessons 137 - 152
June: Lessons 153 - 160

Counting to 100, Number Recognition to 100, Skip counting by tens and fives to 100, Skip counting by twos to twenty, Matching groups to numbers, Counting objects to 25, Counting down from 10 to 1, Moving on a number line, Recognizing and making patterns, Recognizing shapes, Making geometric designs using pattern blocks and tangrams, Visual discrimination skills using geoboard patterns, Comparing numbers using arrows to represent < and>, General concepts of time (morning, afternoon, yesterday, etc.), Calendar activities, Writing times to the hour, Reading times to the hour, Measuring using non-standard units, Visual memory skills, Story problems, Game playing (counting skills, following directions, etc.), Place value (tens and ones), Number sentences, Using symbols to represent numbers, Counting coins (pennies, nickels, dimes), Finding the missing number, Putting numbers in order, Spatial orientation, Left and right Ordinal numbers 1st to 10^{th}, Addition (sums to 18), Commutative property of addition (1+2=2+1), Subtraction, Addition and subtraction as inverse operations, Fractions (half), Attributes, Odd and Even, Number words (zero to ten) and Symmetry

MCRUFFY FIRST GRADE MATH

The McRuffy First Grade Math Program has 160 lessons. These lessons will be completed during this school year, approximately 1 lesson per day, leaving 20 extra days. These 20 days will be spent giving more time to a concept not easily mastered, reviewing at the start of the year and end of year, and with enrichment activities that show themselves to be of value.
The lessons are broken into 4 units. Unit 1 will be completed in early November, Unit 2 at the end of January, Unit 3 in mid-April, Unit 4 in mid-June. An approximate schedule of lesson coverage is below. Specific math content covered for the year is below that.

September: Lessons 1 - 15
October: Lessons 16 - 35
November: Lessons 36 - 52
December: Lessons 53 - 66
January: Lessons 66 - 84
February: Lessons 85 - 102
March: Lessons 103 - 118
April: Lessons 119 - 136
May: Lessons 137 - 152
June: Lessons 153 - 160

Unit 1 (Lessons 1-41)
Number review, Addition review, Patterns, Geometric designs, Inequalities <, >. Number words, Counting coins (1, 5, 10), Charting and Graphing, Time (hour and half-hour), Counting by 2, 5 and 10, Measuring, Place Value 10ís 1ís.

Unit 2 (Lessons 42-91)
Number writing, Regrouping, Geometric designs, Addition (2-digit), Estimate area, Attributes, Inequalities, Coin counting (1, 5, 10, 25), Time (hour and half hour), Number words to 20, Place value to hundreds, Charting and graphing, Skip counting, Missing addends. Counting to 400, Measuring (centimeters), Thermometer reading, Labeling patterns

Unit 3 (Lessons 92-121)
Subtraction (2-digit), Symmetry, Addition (3 addends), Number writing, Charting and graphs, Time to the half-hour, Measuring (inches and centimeters), Skip counting, Geometric designs. Coin counting, Thermometer reading, Inequalities >, <, Attributes, Place value. Pints, quarts, ounces, Feet, yards, inches.

Unit 4 (Lessons 122-160)
Halves, Geometric designs, Addition 3 numbers, Addition 2-digit with regrouping, Addition 3-digits, Estimate time, Rounding to the nearest 10, Subtraction 2-digit and 3-digit, Charts and graphs, Coin counting, Geometric designs, Estimating temperatures, Clock reading to half-hour Odd and even, Skip counting by 100, Time estimation, More and less than half, Measuring, Multiplication by 2, and Commutative property.

MCRUFFY SECOND GRADE MATH

The McRuffy Second Grade Math Program has 160 lessons, to be completed during the school year, approximately 1 lesson per day, leaving 20 extra days. The 20 days will be spent giving more time to concepts not easily mastered, reviewing at the start of the year and end of year, and with enrichment activities that show themselves to be of value.
The lessons are broken into 4 units. Unit 1 will be completed in early November, Unit 2 at the end of January, Unit 3 in mid-April, Unit 4 in mid-June. An approximate schedule of lesson coverage is below. Specific math content covered for the year in each unit, is below that.

September: Lessons 1 – 15 October: Lessons 16 – 35 November: Lessons 36 - 52
December: Lessons 53 – 66 January: Lessons 66 – 84 February: Lessons 85 - 102
March: Lessons 103 – 118 April: Lessons 119 – 136 May: Lessons 137 - 152
June: Lessons 153 - 160

Lessons 1 to 45: Number Review, Review addition, Ordinal numbers, Commutative property, Story problems, Visual analysis skills using Tangrams, Pentominoes, Geoboards, Skip Counting 2, 5, 10, Subtraction Facts Review, Pattern Recognition, Graphing, Place value 1, 10, 100, Adding 2 two-digit numbers, Adding 3 numbers, Attribute recognition, Measuring (cm), Inequalities, Counting money, Adding 3 two-digit numbers, Adding 4 one-digit numbers, Reading clocks (half-hour), Regrouping, Test 1
Lessons 47 to 68: Reading graphs, Place value 1000, Odd and even numbers, Skip counting by 3, 2-digit numbers + 3 digit numbers, Adding 4 numbers, Visual analysis skills, Coins – quarters, Attributes, Adding 3 two-digit numbers, Subtraction of 2-digit numbers, Reading clocks (quarter hour), Reading diagrams, Test 2

Lessons 69 to 90: Adding 2 and 3 digit numbers, Measuring (inches), Two-digit one-digit, Visual analysis skills, Mixed operations, Reading Clocks to 5 minutes, Perimeter, 2-digit 2-digit with regrouping, Attributes, Adding 2 three-digit numbers, Story problems, Graphing, and Test 3

Lessons 91 to 125: Three digit number plus one digit, Fractions halves, fourths, thirds, Adding 2 three-digit numbers, Temperature (F and C), Story problems, Adding 4-digit numbers + 2-digit numbers, Multiplying by 0, 1, 2, 3, 4, 5, 3-digit numbers, 2-digit numbers, 4-digit number + 3-digit number, Adding 3 numbers, Inequalities, Roman numerals I to X, Skip counting 3, 4 Measure to ¼ inch, Test 4

Lessons 126 to 160: Multiply by 6-10, Fractions, fifths, Roman numerals to XXXIX, Mixed operations, Add two 4-digit numbers, Division, 4-digit number 2- & 3-digit numbers, Test 5, Addition facts, Multiplication, Ten thousands place value, Commutative property, Subtraction facts, Even and odd, Two-digit addition, Three-digit addition, Groups as fractions, Skip counting 2, 5, 10, 100, Geometric designs, Number families, Circles as fractions, Multiplication facts, Counting coins, Patterns, Adding time to clocks, Two-digit subtraction, Story problems, Graph reading, Add three two-digit numbers.

MCRUFFY THIRD GRADE MATH

The McRuffy Third Grade Math Program has 161 lessons, to be completed during the school year, approximately 1 lesson per day, leaving 19 extra days. The 19 days will be spent giving more time to concepts not easily mastered, reviewing at the start of the year and end of year, and with enrichment activities that show themselves to be of value.
The lessons are broken into 8 units. Unit 1 and 2 will be completed in early October and early November, Unit 3 & 4 at mid-December and the end of January, Unit 5 & 6 at the end of February and end of March, Unit 7 & 8 in mid-May and mid-June. An approximate schedule of lesson coverage is below. Specific math content covered for the year in each unit, is below that.

September: Lessons 1 – 15	October: Lessons 16 – 35	November: Lessons 36 - 52
December: Lessons 53 – 66	January: Lessons 66 – 84	February: Lessons 85 - 102
March: Lessons 103 – 118	April: Lessons 119 – 136	May: Lessons 137 - 152
June: Lessons 153 - 161		

UNIT 1: Addition facts, Multiplication, Ten thousands place value, Commutative property, Subtraction facts, Even and odd, Two-digit addition, Three-digit addition, Groups as fractions, Skip counting 2, 5, 10, 100, Geometric designs, Number families, Circles as fractions, Multiplication facts, Counting coins, Patterns, Adding time to clocks, Two-digit subtraction, Story problems, Graph reading, Add three two-digit numbers, Test 1.

UNIT 2: Multiplication facts, Subtract two-digit numbers, Add three-digit numbers, Recognize attributes, Add three two-digit numbers, Add time to clocks, Story problems, Inequalities, Math, Machine (function table), Coin counting, Fractions, Complete a table, Measuring centimeters, Cardinal points, Multiple operation problems., Place value, Patterns, Interpret graph, Subtaction facts, Geometric designs, 3 Dimensional shape names, Estimating halves, Symmetry, Skip count 1000, Test 2.

UNIT 3: Fractions, Reading clocks, Skip counting, Subtraction skills, Addition (multiple numbers), Subtraction two three-digit, Centimeters, Thermometer, Inequalities, Coin counting, Calculator skills, Story problems, Roman numerals, Missing multipliers, Compare groups, Perimeter, Area, Multiplication, Math Machine, Place value, Geometric designs, Add & Subtract monetary amounts, Test 3.

UNIT 4: Multiply by 10, Area & perimeter, Missing multipliers, Division terms, Division, Graphing, Roman numerals, Coin counting, Subtraction fact review, Add & subtract fractions, Subtract time, Identify shapes, Geometric designs. Multiple operation problems, Inequalities, Story problems, Collect data, Add & subtract monetary amounts, Attributes, Coordinates (letter, number), Test 4.

UNIT 5: Division, Clock reading, Math Machine, Coin counting, Multiplication, NumbePatterns Inches and Centimeters, Story problems, Addition, Attributes, Multiple operations, Inequalities, Geometric designs, Add & Subtract fractions, Rounding to 100, Coordinates, Creating a graph, Estimate addition and subtractions, Thermometers, Division with remainders, Roman numerals, Calendar, Test 5.

UNIT 6: Division, Coin counting, Math Machines, Coordinates, Geometric designs, Graphing, Story problems, Inequalities, Choosing measuring device, Add & subtract monetary amounts, Regroup minutes as hours and minutes, Recognize sequences in designs, Write coordinates, Make rules for number groups, Multiply 3-digit numbers by 1-digit, Compare fractions, Complete a table, Associative property, Estimate times, Find missing signs, Fractions on a ruler, Write story problems, Multiplying 2 two-digit numbers, Test 6.

UNIT 7: Add & subtract five-digits, Decimals tenths, Time, Multiply two-two-digit numbers, Match patterns, Round to 100, Math Machine, Inequalities, Add and subtract time, Multiply four-digit numbers by one-digit, Thermometers, Coordinates (number, number), Multiple operations, Venn diagrams, Story problems, Graphs, Geometric designs, Compare fractions, Division, Make change, Add & subtract decimals, Time to minute, Missing signs, Match patterns, Roman numerals, Symmetry, Test 7.

UNIT 8: Add & subtract multiple numbers, Roman numerals, Convert units, Compare fractions, Round dollars, Estimate time, Symmetry, Story problems, Making change from up to $100, Compare degrees C and F, Multiplication, Division, Graphing, Division with bracket, Decimals hundredths, Geometric designs, Attributes, Place value to millions, Test 8.

The McRuffy Fourth Grade Math Program has 160 lessons, to be completed during the school year, approximately 1 lesson per day, leaving 20 extra days. The 20 days will be spent giving more time to concepts not easily mastered, reviewing at the start of the year and end of year, and with enrichment activities that show themselves to be of value.

September: Lessons 1 – 15	October: Lessons 16 – 35	November: Lessons 36 - 52
December: Lessons 53 – 66	January: Lessons 66 – 84	February: Lessons 85 - 102
March: Lessons 103 – 118	April: Lessons 119 – 136	May: Lessons 137 - 152
June: Lessons 153 - 160		

Particular emphasis for the 4th grade includes:

- Division skills,
- Fractions,
- Decimals,
- Mental math, and the
- Geometry of angles and triangles

Important concepts include:

- Addition and subtraction (up to ten-digits) with regrouping including decimals
- Multiplication up to 2-digit x 4-digits including decimals
- Division facts and long division, including decimals
- Reading thermometers,
- Measuring,
- Making change,
- Counting change from dollar amounts
- Place value from decimals to ten-millions,
- Adding and subtracting fractions with unlike denominators,
- Geometric reasoning,
- Adding and subtracting times including AM and PM
- Applying math properties including distributive, commutative, and associative
- Graphing equations
- Areas and perimeters of irregular shapes
- Areas of triangles
- Geometric vocabulary for lines, angles, solids, quadrilaterals, and triangles
- Decimal to fraction equivalents
- Patterns of change
- Unit conversions for volume, length, weight, and time
- Negative numbers
- Variables
- Charts and graphs including coordinate systems
- Estimating

MCRUFFY FIFTH GRADE MATH

The McRuffy Fifth Grade Math Program has 160 lessons, to be completed during the school year, approximately 1 lesson per day, leaving 20 extra days. The 20 days will be spent giving more time to concepts not easily mastered, reviewing at the start of the year and end of year, and with enrichment activities that show themselves to be of value.

September: Lessons 1 – 15	October: Lessons 16 – 35	November: Lessons 36 - 52
December: Lessons 53 – 66	January: Lessons 66 – 84	February: Lessons 85 - 102
March: Lessons 103 – 118	April: Lessons 119 – 136	May: Lessons 137 - 152
June: Lessons 153 - 160		

Particular emphasis for the 5th grade includes:

- Long Division
- Adding, Subtracting, Multiplying, and Dividing Fractions
- Converting Measuring Units (within a system)
- Volume and Surface Area
- Graphing
- Place Value to billions and millionths
- Data: mean, median, mode, range
- Factoring
- Percentages
- Decimals