

Excel Math

AnsMar Publishers, Inc.

(K - 6) CURRICULUM

2nd Grade Scope & Sequence

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Scope & Sequence of Lessons & Activities

by lesson number

Lesson Concept

PLACE VALUE AND COUNTING

Place value

- 54 Grouping items by tens
- 64 Writing numbers that are represented in tens and ones
- 74 Learning about tens and ones places
- 91 Recognizing the hundreds places
- 123 Solving place value problems with a zero in the tens or ones place

Recognizing number words

- 7 Recognizing the ordinals first through fifth
- 17 Recognizing the words for numbers - zero through ten
- 24 Recognizing the words twenty, thirty, forty and fifty
- 28 Recognizing the words eleven, twelve, thirteen and fourteen
- 33 Recognizing the words sixty, seventy, eighty and ninety
- 38 Recognizing the words fifteen, sixteen, seventeen, eighteen and nineteen
- 41 Recognizing any number less than 100
- 76 Recognizing the ordinals sixth through tenth
- 92 Recognizing any number up through 999, not having zeros
- 148 Recognizing any number up to 999

Series and Patterns

- 2 Filling in missing numbers when counting by one (zero through nine)
- 18 Filling in missing numbers when counting up and crossing a ten
- 26 Filling in missing numbers when counting down and crossing a ten
- 37 Recognizing by what a number a sequence is counting
- 47 Filling in missing numbers when counting by 5 or 10
- 70 Filling in a missing number when counting by two
- 87 Filling in missing numbers when counting by two and crossing a ten
- 93 Recognizing a sequence counting by ten (23, 33, 43, 53)

Putting things in order

- 3 Evaluating numbers using the words most, least, greatest value, least value
- 14 Putting 3 two-digit numbers in order
- 61 Putting four numbers in order from least to greatest
- 73 Putting 4 two-digit numbers in order from greatest to least
- 142 Evaluating three-digit numbers

Mathematical Symbols (<, >, =, ≠)

- 12 Recognizing the symbols "<" less than, ">" greater than and "=" equal
- 112 Discerning true number sentences using <, >, = and ≠
- 112 Defining the word equation
- 124 Using pairs of numbers in < and > problems
- 142 Evaluating three-digit numbers

Scope & Sequence of Lessons & Activities

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Lesson Concept

ADDITION OF WHOLE NUMBERS

Addition facts

- 1 Learning the addition facts up through nine
- 4 Adding 3 one-digit numbers
- 9 Learning the addition facts of ten and eleven
- 16 Adding 3 one-digit numbers with a sum less than twenty
- 20 Recognizing addition and subtraction fact families
- 21 Adding 3 one-digit numbers horizontally
- 28 Learning the addition facts of twelve and thirteen
- 36 Learning the addition facts of fourteen and fifteen
- 48 Learning the addition facts of 16, 17 and 18
- 51 Adding 4 one-digit numbers
- 95 Solving word problems using repeated addition
- 147 Adding 3 or 4 one-digit numbers where the sum is greater than 19 and less than 30

No Regrouping

- 11 Adding a two-digit and a one-digit number
- 16 Adding 2 two-digit numbers
- 34 Adding 3 two-digit numbers without regrouping
- 79 Adding money amounts
- 86 Adding money amounts horizontally
- 92 Adding 2 three-digit numbers

Regrouping

- 22 Regrouping using the facts of ten when adding a two-digit and a one-digit number
- 31 Regrouping when adding 2 two-digit numbers using the sums of ten
- 39 Regrouping using the addition facts of eleven
- 46 Adding 3 two-digit numbers with regrouping
- 49 Regrouping using the addition facts of twelve
- 59 Regrouping using the addition facts of thirteen
- 68 Regrouping using the addition facts of fourteen
- 76 Regrouping using the addition facts of 15, 16, 17 & 18
- 106 Regrouping to the tens place when adding 2 three-digit numbers
- 118 Adding 4 two-digit numbers
- 122 Regrouping with the hundreds place when adding
- 133 Regrouping twice when adding 2 three-digit numbers
- 133 Adding 3 three-digit numbers, regrouping once
- 138 Learning to regroup using money amounts
- 146 Regrouping twice when adding 3 three-digit numbers

SUBTRACTION OF WHOLE NUMBERS

Subtraction facts

- 1 Learning the subtraction facts up through nine
- 13 Learning the subtraction facts of ten and eleven
- 20 Recognizing addition and subtraction fact families
- 42 Learning the subtraction facts of 12 and 13
- 56 Learning the subtraction facts of 14 and 15
- 67 Learning the subtraction facts of 16, 17 and 18

Scope & Sequence of Lessons & Activities

by lesson number

Lesson Concept

Activity Concept

No Regrouping

- 11 Subtracting a two-digit and a 1-digit number
- 16 Subtracting 2 two-digit numbers
- 79 Subtracting money amounts
- 86 Subtracting money amounts horizontally

Regrouping

- 92 Subtracting 2 three-digit numbers
- 71 Two-digit minus a one-digit – using the facts of 10
- 72 Two-digit minus a one-digit – using the facts of 10
- 82 Two-digit minus a two-digit – using the facts of 10
- 88 Regrouping using the facts up through 11
- 94 Regrouping using the facts up through 13
- 107 Regrouping using the facts up through 15
- 116 Regrouping with the tens place when subtracting 2 three-digit numbers
- 118 Regrouping using the facts up through 18
- 129 Regrouping only with the hundreds place when subtracting
- 138 Learning to regroup using money amounts
- 139 Regrouping twice when subtracting 2 three-digit numbers
- 145 Subtracting three-digit numbers, regrouping twice, when there is a 1 or a 0 in the tens place

MULTIPLICATION OF WHOLE NUMBERS

- 108 Learning the multiplication facts with products up through ten and products with 2 as a factor
- 121 Learning the multiplication facts with products with 5 as a factor
- 125 Learning to solve word problems involving multiplication
- 131 Learning the multiplication facts with products up to 20
- 137 Recognizing multiplication and division fact families
- 141 Learning the multiplication facts with products less than 100 and with 10 or 11 as a factor

DIVISION OF WHOLE NUMBERS

- 113 Solving division story problems by selecting the correct model
- 115 Learning division facts with dividends up to 14 by dividing into equal parts
- 127 Learning to solve word problems involving division when given pictures
- 136 Learning division facts with dividends up to 20
- 137 Recognizing multiplication and division fact families
- 152 Learning division facts when the dividend is a multiple of 5
- 153 Learning to solve word problems involving division

FRACTIONS

- 63 Modeling fractions with shaded diagrams and groups of people
 - 77 Calculating one-half of a group of up to ten things
 - 80 Selecting the correct fraction
 - 80 Defining numerator and denominator
 - 111 Calculating one-half of a group up to 20
 - 120 Learning that the whole is the sum of its parts
 - 126 Learning to match numbers with fractional parts of a circle
 - 150 Adding and subtracting fractions
 - 155 Recognizing equivalent fractions in pictures
- A2 Fractional Parts

Scope & Sequence of Lessons & Activities

by lesson number

Lesson Concept

MONEY

- 43 Recognizing coins - quarter, dime, nickel and penny
- 79 Recognizing the dollar symbol and decimal
- 79 Adding and subtracting money amounts
- 83 Learning change equivalents for a quarter, dime & nickel
- 109 Recognizing money number words
- 109 Writing change with a \$ and decimal
- 119 Recognizing a half dollar
- 119 Learning which coins to use to buy something
- 138 Regrouping when adding or subtracting money amounts
- 140 Regrouping twice when subtracting money amounts
- 149 Learning the dollar equivalents for half dollars, quarters & dimes

TIME - CLOCK

- 19 Telling time by the hour
- 29 Recognizing half past on the clock
- 45 Recognizing a quarter to and a quarter past the hour
- 62 Telling time by 5 minutes
- 69 Telling time to the minute
- 89 Calculating the minutes before the hour
- 98 Telling time within so many hours, on the hour
- 143 Telling time within so many hours, off the hour

TIME - CALENDAR

- 44 Learning the days of the week
- 134 Calculating the date within a week going forward
- 151 Recognizing the names of the months of the year

ODD AND EVEN NUMBERS

- 99 Recognizing odd and even numbers, up to ten
- 111 Recognizing odd and even numbers up to 20

WORD PROBLEMS

- 27 Solving word problems using addition and subtraction
- 30 Evaluating information to see if it is sufficient to answer the question
- 33 Solving word problems when there are no calculations
- 40 Putting a series of events in order
- 57 Solving word problems with extraneous information and the phrase "more than"
- 66 Solving word problems involving money
- 81 Solving story problems involving comparative words
- 95 Solving word problems involving multiplication by selecting the correct model
- 97 Solving addition and subtraction problems given in words
- 104 Solving two-step word problems
- 113 Solving division word problems by selecting the correct model
- 117 Selecting the correct equation when given a word problem
- 125 Learning to solve word problems involving multiplication
- 130 Using deductive reasoning to solve a story problem
- 153 Learning to solve word problems involving division

Scope & Sequence of Lessons & Activities

by lesson number

Lesson Concept

Activity Concept

MEASUREMENTS

- 53 Reading scales and other measuring devices
- 55 Learning the names for standard units of length (in, ft, yd, cm, m, km)
- 60 Learning the names for standard units of weight (lb, oz, ton, grams, kg)
- 65 Learning the names for standard units of volume (cup, pint, qt, gal, liter)

- V1-V8 Measurement of Volume
- W1-W7 Measurement of Weight
- D1-D6 Measurement of Distance
- A9 Balance Scales

GEOMETRY

Shapes and figures

- 8 Recognizing shapes - circle, triangle, rectangle, square
- 10 Reasoning using overlapping figures
- 36 Learning a square is also a rectangle
- 75 Recognizing lines of symmetry
- 78 Recognizing shapes with common characteristics
- 84 Measuring a line segment to the nearest inch
- 85 Measuring a line segment to the nearest centimeter
- 90 Computing the area of a plane figure given in square units
- 96 Recognizing patterns of shading
- 101 Completing a pattern of shapes
- 110 Recognizing three-dimensional figures
- 132 Calculating perimeters to the nearest inch or centimeter

- A7 Strength of Figures
- A11 Lines of Symmetry
- A12 Strength of Figures
- A13 Figures on a Grid

Position and Direction

- 135 Learning to recognize flips, turns, and slides
- 144 Learning to recognize when figures are similar or congruent

ESTIMATING

- 134 Estimating answers
- 143 Estimating how much time events take

PRE-ALGEBRA

- 6 Calculating a number 1 more or less than a given number
- 11 Calculating a number 1 more or less than a given two-digit number
- 38 Filling in a missing number in a number sentence involving addition
- 52 Filling in a missing number in a number sentence involving addition
- 58 Filling in a missing number in a number sentence involving subtraction
- 97 Calculating a number more or less than a given number
- 102 Learning the order of operations when parentheses are involved
- 103 Performing a calculation and then filling in a missing number in a number sentence

- A6 Scheduling Teams

PROBABILITY

- 25 Determining probability using a spinner
- 35 Calculating possible outcomes
- 100 Calculating probability from possible outcomes

- A1 Probability Grid

Scope & Sequence of Lessons & Activities

by lesson number

Lesson Concept

Activity Concept

REASONING AND LOGIC

- 30 Evaluating information to see if it is sufficient to answer the question
- 33 Solving word problems when there are no calculations
- 40 Putting a series of events in order

- A3 Deductive Reasoning
- A4 Asking Questions
- A5 Deductive Reasoning Charts
- A9 Balance Scales
- A10 Advertising Information
- A14 Position and Sequence

GRAPHS

- 5 Interpreting tally graphs
- 15 interpreting picture graphs
- 35 interpreting pie graphs
- 50 Interpreting vertical and horizontal bar graphs

- V1-V8 Measurement of Volume
- W1-W7 Measurement of Weight
- D1-D6 Measurement of Distance

Scope & Sequence of Stretches

by concept, with lesson and page numbers

Lesson Pg. Stretch Concepts

NUMERATION

22	52	Arranging numbers on a grid so sums add to 10
26	62	Arranging numbers on a grid so sums add to 11
31	74	Arranging numbers on a grid so sums add to 12
38	90	Arranging numbers on a grid so sums add to 13
46	110	Arranging numbers on a grid so sums add to 14
51	122	Arranging numbers on a grid so sums add to 15
56	134	Arranging numbers on a grid so sums add to 16
60	142	Arranging numbers on a grid so sums add to 17
68	162	Arranging numbers on a grid so sums add to 18
25	58	Arranging numbers so no two consecutive numbers are adjacent
32	76	Arranging numbers so no two consecutive numbers are adjacent
39	92	Arranging numbers so no two consecutive numbers are adjacent
91	218	Arranging numbers so no two consecutive numbers are adjacent
113	270	Arranging numbers so no two consecutive numbers are adjacent
149	356	Arranging numbers so no two consecutive numbers are adjacent
90	214	What 3 consecutive numbers add to 66
115	274	What 3 odd 2-digit numbers equal 47

Scope & Sequence of Stretches

by concept, with lesson and page numbers

Lesson	Pg.	Stretch Concepts
128	306	What 3 even 2-digit numbers add to 66
136	326	What 3 consecutive numbers equal 84
150	358	What 3 consecutive numbers equal 132
153	366	What 3 consecutive numbers equal 174
152	364	Filling in a missing sequence of numbers
SORTING		
59	140	Order in a 4-way boat race
64	152	Order from tallest to shortest
78	186	Order in a foot race
84	200	Order in a 4-way boat race
89	212	Order of arrival of 4 people
98	234	Order of position of 4 houses
120	286	Order of ribbons given to three dogs
148	354	Order of 5 strings from short to long
48	114	Sequence of scoreboards for a soccer game
54	128	Sequence of events in attending a baseball game then a movie
102	244	Match up positions of 4 players on a football team
107	256	Match up first and last names of 3 people
111	266	Match up professions of 3 people
116	278	Match up favorite subjects of three students
145	346	Match up birthdays of 3 people
TIME - CALENDAR		
40	94	Calendar - given the 48th day in the year, what is the date
49	116	Calendar - given the 93rd day in the year, what is the date
104	248	Calendar - given the 130th day in the year, what is the date
133	318	Calendar - given the 200th day in the year, what is the date
GEOMETRY		
23	54	Forming 1 square by moving 2 lines
34	80	Forming 2 squares by moving 2 lines
62	148	Forming 3 squares by moving 1 line
74	176	Forming 3 squares by moving 3 lines
92	220	Forming 6 triangles by moving 4 lines
103	246	Forming 2 shapes by moving 3 lines
112	268	Forming 3 squares by moving 3 lines
127	304	Forming 6 squares by moving 2 lines
138	330	Forming 2 squares by moving 2 lines
144	344	Forming 3 squares by moving 5 lines
66	158	Moving 2 circles on a drawing to turn the image upside down
77	184	Moving 3 circles on a drawing to turn the image upside down
36	86	How many sides are shared; 16 total squares
85	202	How many sides are shared; 25 total squares
94	224	How many squares are there in a 4 x 4 grid
24	56	Recognizing multiple rectangles in a complex figure

Scope & Sequence of Stretches

by concept, with lesson and page numbers

Lesson	Pg.	Stretch Concepts
105	250	Recognizing multiple triangles in a complex figure
129	308	Recognizing multiple squares in a complex figure
139	332	Recognizing multiple triangles in a complex figure
27	64	Multiple paths from A to B along a grid of routes
GRAPHING		
55	130	Creating a chart to show number of items owned by 2 girls
REASONING		
28	66	Hw much time required to cut an item into 10 pieces
29	68	How many in the family
30	70	How many dogs
33	78	How many ways to write a problem
35	82	How many apples
37	88	How many cats
43	102	How many hits in a baseball game
50	118	How many finishing results for 3 runners
58	138	How many trees; total 12
63	150	How many fish were caught
67	160	How many birds
71	170	How many handshakes
72	172	How many coins if one has twice as many as another; total 15
76	182	How many books if one has 6 more than another; total 12
79	188	How many books if one has 1 more than another, total 17
81	194	How many possibilities for race outcome with 4 runners
83	198	How many fish if one has 1 more than another, total 15
86	206	How many handshakes
93	222	How many cards do each of 4 people have
53	126	How to exactly fill a bottle
88	210	True, false or not enough information based on 2 statements
106	254	True, false or not enough information based on 2 statements
122	292	True, false or not enough information based on 2 statements
135	322	True, false or not enough information based on 2 statements
141	338	True, false or not enough information based on 2 statements
44	104	Who got to school first
69	164	Who has the most marbles
73	174	Who owns the truck
PRE-ALGEBRA		
41	98	Equation: letters in place of numbers (horiz. add & subtract)
45	106	Equation: letters in place of numbers (horiz. add & subtract)
52	124	Equation: letters in place of numbers (horiz. add & subtract)
57	136	Equation: letters in place of numbers (horiz. addition)
61	146	Equation: letters in place of numbers (horiz. add & subtract)
65	154	Equation: letters in place of numbers (horiz. add & subtract)
70	166	Equation: letters in place of numbers (horiz. add & subtract)
75	178	Equation: letters in place of numbers (horiz. add & subtract)
80	190	Equation: letters in place of numbers (horiz. add & subtract)

Scope & Sequence of Stretches

by concept, with lesson and page numbers

Lesson	Pg.	Stretch Concepts
82	196	Equation: letters in place of numbers (vertical addition over 100)
87	208	Equation: letters in place of numbers (horiz. add & subtract)
95	226	Equation: letters in place of numbers (horiz. add, subtract & multiply)
101	242	Equation: letters in place of numbers (horiz. add, subtract & multiply)
109	260	Equation: letters in place of numbers (horiz. add, subtract & multiply)
114	272	Equation: letters in place of numbers (horiz. repeated add, subtract & multiply)
119	284	Equation: letters in place of numbers (horiz. subtract & multiply)
125	298	Equation: letters in place of numbers (horiz. add, subtract & multiply)
130	310	Equation: letters in place of numbers (horiz. repeated add, subtract & multiply)
134	320	Equation: letters in place of numbers (horiz. repeated add, subtract & multiply)
137	328	Equation: letters in place of numbers (horiz. add, subtract & multiply)
143	342	Equation: letters in place of numbers (horiz. add, subtract & multiply)
147	352	Equation: letters in place of numbers (horiz. add, subtract & multiply)
155	370	Equation: letters in place of numbers (horiz. multiply)
21	50	Numerical values represented by symbols
96	230	Numerical values represented by symbols
99	236	How many men and cows given 24 legs and 7 heads
110	262	How many 2 and 3-legged stools given given 36 legs and 10 stools
117	280	How many 2, 3, and 4 cent stamps given 6 stamps and 17 cents
121	290	How many tires given 3 bikes, 2 trikes and 2 cars
126	302	How many 4, 5, and 6 cent stamps given 9 stamps and 46 cents
132	316	How many 6, 7, and 8 cent stamps given 6 stamps and 41 cents
140	334	How many 5, 8, and 10 cent stamps given 6 stamps and 72 cents
146	350	How many 10, 11, and 12 cent stamps given 6 stamps and 87 cents
154	368	How many bicycles and tricycles given 23 wheels and 7 total items
108	258	How much are contents if bottle is so much of total price
123	294	How much are contents if carton is so much of total price
100	238	Move boxes to balance a scale (numbers to balance an equation)
118	282	Move boxes to balance a scale (numbers to balance an equation)
131	314	Move boxes to balance a scale (numbers to balance an equation)
142	340	Move numbers to balance sums in three circles
42	100	Function machine transforms a set of numbers - add 2
47	112	Function machine transforms a set of numbers - subtract 3
97	232	Function machine transforms a set of numbers - add 10
124	296	Function machine transforms a set of numbers - subtract 5
151	362	Function machine transforms a set of numbers - multiply by 10

Create A Problem (Back of Tests)

by test, with title, lesson concept and page numbers

Test	Page	Concepts
Test 01	12	Story Problems - observation and interpretation - A Flag Pin
Test 02	24	Story Problems - observation and interpretation - Acting In A Play
Test 03	36	Story Problems - observation and interpretation - Books in Boxes
Test 04	48	Graphing - creating a picture graph - The Bird Sanctuary
Test 05	60	Numeration - counting in multiple languages - ASL Numbers
Test 06	72	Reasoning - Sufficient information or not - Walking the Dog
Test 07	96	Time Calendar - Presidents' Day Holiday
Test 08	108	Story Problems - observation & interpretation - Plants and Animals
Test 09	120	Graphing - putting data on a tally chart - Sports Wheelchair
Test 10	132	Time Calendar - putting time on a calendar - Wheelchair Basketball
Test 11	144	Story Problems - creating problems - Pet Rabbit
Test 12	156	Measuring - temperature scales - Celina's Trip to New Mexico
Test 13	180	Time - Dario's Trip to New Mexico
Test 14	192	Distance - Seniors go to Capistrano
Test 15	204	Time Clock - Doing Homework
Test 16	216	Story Problems - create two problems and a Checkanswer - Croquet
Test 17	228	Graphing - creating a picture graph - Sunscreen Lotion at the Beach
Test 18	240	Story Problems - drawing items mentioned in text - Emergency Kit
Test 19	264	Story Problems - finish the story - Clock on the Ceiling
Test 20	276	Geometry - drawing a floor plan of a room - Bedroom Furniture
Test 21	288	Time Clock - showing elapsed time on analog clocks - Flower Garden
Test 22	300	Graphing - using data from a bar graph - Learning Other Languages
Test 23	312	Time Calendar - scheduling events - Class Tortoise
Test 24	324	Graphing - using data from a picture graph - Walking Dogs