

OPERATIONS AND ALGEBRAIC THINKING

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OPERATIONS AND ALGEBRAIC THINKING

REPRESENT AND SOLVE PROBLEMS INVOLVING ADDITION AND SUBTRACTION

2.OA.A.1

Use addition and subtraction within 100 to solve one and two step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

WORD PROBLEMS (WITHIN 100)

ADD TO

RESULT UNKNOWN	005
CHANGE UNKNOWN	010
START UNKNOWN	015

PUT TOGETHER / TAKE APART

TOTAL UNKNOWN	020
ADDEND UNKNOWN	025

TAKE FROM

RESULT UNKNOWN	030
CHANGE UNKNOWN	035
START UNKNOWN	040

COMPARE

DIFFERENCE UNKNOWN	045
BIGGER UNKNOWN	050
SMALLER UNKNOWN	055

TWO STEP WORD PROBLEMS

LITERATURE LINK TASK CARDS:

TWO OF EVERYTHING	064
THE NAPPING HOUSE	065
P.BEAR'S NEW YEAR'S EVE PARTY	066
NIGHT NOISES.....	067
THE SHOPPING BASKET	068
COUNTING CROCODILES	069
MY LITTLE SISTER ATE ONE HARE	070

ADD AND SUBTRACT WITHIN 20

2.OA.A.2

Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

DOUBLES BUMP	073
DOUBLES MEMORY	075
DOUBLES COVER UP (V. 1 & 2)	081
DOUBLES PLUS ONE (V. 1)	085
DOUBLES PLUS TWO (V. 1)	089
DOUBLES MINUS ONE (V. 1)	093
DOUBLES MINUS TWO (V. 1)	097
FIND TEN	101
MAKE A TEN (V. 1-3)	102
MAKE A TEN PATH (V. 1)	111
THE DIFFERENCE GAME (V. 1-4)	113
FOUR IN A ROW SUBTRACTION	121

NUMBER WHEEL SPIN (V. 1)	122
NEAR 20	125
11 MORE	127
SUM SEARCH	129
MAGIC STAR	133
MAGIC TRIANGLE	135
MAGIC SQUARE	137
NUMBER RELATIONSHIP MAT	140

WORK WITH EQUAL GROUPS OF OBJECTS TO GAIN
FOUNDATIONS FOR MULTIPLICATION

2.OA.C.3

Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.

EVEN ODD SCOOP	142
EVEN SLAP	144
ODD AND EVEN CHASE	146
LITERATURE LINK TASK CARD: EVEN STEVEN AND ODD TODD	149

2.OA.C.4

Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

ROLL A RECTANGULAR ARRAY	151
MAKING DIFFERENT SIZED SQUARES	152
MAKING RECTANGULAR ARRAYS	153
ARRAY CARDS	154
ARRAY MATCH	160

NUMBERS AND OPERATIONS IN BASE TEN

UNDERSTAND PLACE VALUE

2. NBT. A. 1

Understand that the three digits of a three-digit number represent amounts of hundreds, tens and ones. Understand the following as special cases:

- A 100 can be thought of as a bundle of ten tens - called a “hundred.”
- B The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, nine hundreds (and 0 tens and 0 ones.)

MAKE TEN BUNDLES	168
REPRESENTING MULTIPLES OF 100	170
RACE TO 100	172
RACE TO ZERO	175
BASE TEN CONCENTRATION (V. 2)	177
FIVE WAYS	183
REPRESENTING NUMBERS WITH 4 BLOCKS	184

2. NBT. A. 2

Count within 1000; skip count by 2s, 5s, 10s, and 100s.

COUNTING COLLECTIONS (V. 1 & 2)	185
MY SKIP COUNTING PATTERNS BOOK	190
SKIP COUNTING CARDS	193
COUNT BY TENS (V. 1 - 4)	208
COUNT BY FIVES (V. 1 - 4)	221
SKIP COUNTING PATTERNS (V. 1 - 2)	234
SKIP COUNTING SEQUENCES	238
SKIP COUNTING TOWERS	239
LITERATURE LINK TASK CARD: TWO WAYS TO COUNT TO TEN	241

2. NBT. A. 3

Read and write numbers to 100 using base-ten notation, number names, and expanded form.

MAKE SIX NUMBERS	242
NUMBER WORD CONCENTRATION	243
ROLL THREE DIGITS	246
NUMERAL WRITING BARRIER GAME	247

2. NBT. A. 4

Compare two three-digit numbers based on meanings of the hundreds, tens and ones digits, using $>$, $=$ and $<$ symbols.

BUILD AND COMPARE	250
COMPARING 3-DIGIT NUMBERS	252
PLACE VALUE CHALLENGE (V. 1)	254
PLACE VALUE TRIANGLE (V. 1)	257
ORDER UP	259

USE PLACE VALUE UNDERSTANDING
AND PROPERTIES OF OPERATIONS
TO ADD AND SUBTRACT

2. NBT. A. 5

Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

2-DIGIT ADDITION TRAINS (V. 1 & 2)	261
NUMBER WHEEL SPIN (V. 2)	263
DOUBLES PATH (V. 2 & 3)	267
NEAR DOUBLES PATH (V. 2 & 3)	269
DOUBLES PLUS ONE (V. 2)	271
DOUBLES PLUS TWO (V. 2)	275
DOUBLES MINUS ONE (V. 2)	279
DOUBLES MINUS TWO (V. 2)	283
FOUR IN A ROW WITH NEAR DOUBLES	287
MAKE A TEN COVER UP (V. 2)	290
MAKE A TEN PATH (V. 2)	296
2-DIGIT ADDITION	
ON AN OPEN NUMBER LINE (V. 1)	298
ON AN OPEN NUMBER LINE (V. 2)	302
2-DIGIT SUBTRACTION	
ON AN OPEN NUMBER LINE (V. 1)	305
ON AN OPEN NUMBER LINE (V. 2)	308
ON AN OPEN NUMBER LINE (V. 3)	311
2-DIGIT ADDITION SPLIT	314
2-DIGIT SUBTRACTION SPLIT	317
KEEP ON DOUBLING	320
CLOSE TO 100	321
CLOSE TO ZERO	322

2. NBT. B. 6

Add up to four two-digit numbers using strategies based on place value and properties of operations.

ADD THREE ADDENDS	323
ADD FOUR ADDENDS	326
MAKE 100	329
THREE ADDEND WORD PROBLEMS	332

2. NBT. B. 7

Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

BASE TEN BAG – ADDITION	336
BASE TEN BAG – SUBTRACTION	338
BASE TEN BUILDINGS	340
BASE TEN PICTURES	342

MAKE A TEN PATH (V. 3)	345
3-DIGIT ADDITION	
ON AN OPEN NUMBER LINE (V. 1)	347
ON AN OPEN NUMBER LINE (V. 2)	351
3-DIGIT SUBTRACTION	
ON AN OPEN NUMBER LINE (V. 1)	354
ON AN OPEN NUMBER LINE (V. 2)	357
ON AN OPEN NUMBER LINE (V. 3)	360
3-DIGIT ADDITION SPLIT	363
3-DIGIT SUBTRACTION SPLIT	367

2. NBT. B. 8

Mentally add 10 or 100 to a given number 100-900 and mentally subtract 10 or 100 from a given number 100-900.

ADD 10 ON A NUMBER LINE	371
SUBTRACT 10 ON A NUMBER LINE	372
ADD 100 ON A NUMBER LINE	373
SUBTRACT 100 ON A NUMBER LINE	374
ADD 10 NUMBER PATHS	375
SUBTRACT 10 NUMBER PATHS	378
RACE AROUND (+10) (V. 3)	380
RACE AROUND (-10) (V. 2)	381
RACE AROUND (-10) (V. 3)	382
ADD 10 AND 100	383
SUBTRACT 10 AND 100	385

2. NBT. B. 9

Explain why addition and subtraction strategies work, Using place value and the properties of operations.

EXPLAINING ADDITION AND SUBTRACTION STRATEGIES	387
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MEASUREMENT AND DATA

MEASURE AND ESTIMATE LENGTHS IN STANDARD UNITS

2.MD.A.1

Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

MEASURING PATHS	400
MEASURING WITH A METER STICK	405
MEASURING STRIPS	407

2.MD.A.2

Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

LITERATURE LINK TASK CARD:

HOW BIG IS A FOOT?	410
MEASURING WITH TWO UNITS	413
MEASURE IT TWICE	414
MEASURING IN INCHES AND FEET	416
MEASURING IN CENTIMETERS AND METERS	418

2.MD.A.3

Estimate lengths using units of inches, feet, centimeters, and meters.

ESTIMATING LENGTH	420
ESTIMATING CENTIMETER MEASURES	421
ESTIMATING METER MEASURES	422

2.MD.A.4

Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

ARE YOU A SQUARE OR A RECTANGLE?	424
COMPARING LENGTHS IN CENTIMETERS	425
COMPARING LENGTHS IN METERS	427
HOW FAR CAN YOU JUMP?	429
GUMMY WORM STRETCH!	431
MEASURING CUISENAIRE RODS	433

RELATE ADDITION AND SUBTRACTION TO LENGTH

2.MD.B.5

Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.

LENGTH WORD PROBLEMS	435
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2.MD.B.6

Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2 and represent whole-number sums and differences within 100 on a number line diagram.

JUMPING FROGS (V. 1)	440
JUMPING FROGS (V. 2)	444

WORK WITH TIME AND MONEY

2.MD.C.7

Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

TIME MATCH (V. 3)	448
TIME MATCH (V. 4)	451
TIME BUMP (V. 1)	454
TIME BUMP (V. 2)	456
TIME BUMP (V. 3)	458
TIME BARRIER GAME	460
ONE HOUR EARLIER, ONE HOUR LATER	463
A.M. OR P.M.?	464

2.MD.C.8

Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies using \$ and cent symbols appropriately. Example: if you have 2 dimes and 3 pennies, how many cents do you have?

COIN SORT	467
COIN BARRIER GAME	469
COIN SCOOP (V. 1)	473
COIN SCOOP (V. 2)	474
COIN SCOOP (V. 3)	475
MAKE ONE DOLLAR	476
MONEY BOARD	477
JOE'S FRUIT AND VEGETABLE STORE	480
MONEY WORD PROBLEMS	483
WHICH HAS THE GREATER VALUE?	488
LITERATURE LINK TASK CARDS:	
A QUARTER FROM THE TOOTH FAIRY	489
A CHAIR FOR MY MOTHER	490

REPRESENT AND INTERPRET DATA

2.MD.D.9

Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

STRAW PLOT	491
PENCIL PLOT	494
MEASUREMENT LINE PLOT	497

2.MD.D.10

Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.

BUTTON BAR GRAPH	499
BUTTON PICTURE GRAPH	500
COLLECTING AND REPRESENTING DATA	501

GEOMETRY

REASON WITH SHAPES AND THEIR ATTRIBUTES

2.G.A.1

Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

MY SHAPE RIDDLE	506
CONSTRUCTING 2-D SHAPES	508
DESCRIBING 3-D SHAPES	509
COMPARING 3-D SHAPES	510
GEOBOARD QUADRILATERALS	511
GEOBOARD TRIANGLES	512
FLIP, SLIDE, TURN	513
TANGRAM SHAPES	514
NETS FOR A CUBE	515
SKELETAL MODELS	517
LITERATURE LINK TASK CARD: THE GREEDY TRIANGLE	518

2.G.A.2

Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

COVER A RECTANGLE	520
COMPLETE THE RECTANGLE	523

2.G.A.3

Partition circles and rectangles into two, three, or four equal shares, describes the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

GEOBOARD HALVES	530
GEOBOARD FOURTHS	531
FRACTION BARRIER GAME	532
MR. ZED'S CAKES	534