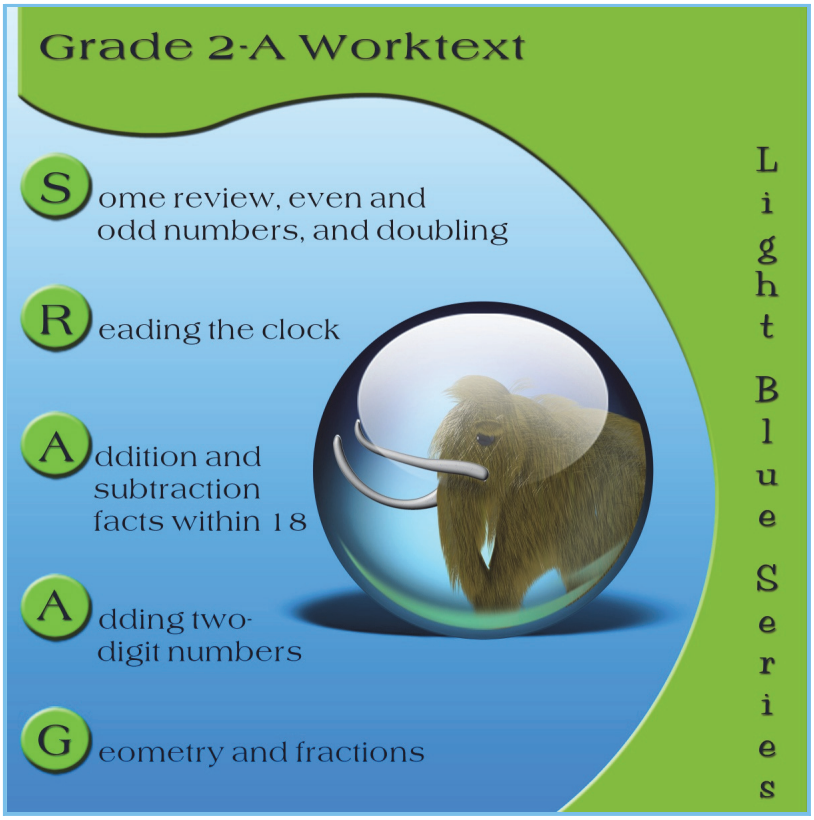
Math Mammoth
Grade 2-A Worktext



By Maria Miller

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Foreword

Math Mammoth Grade 2 comprises a complete math curriculum for the second grade mathematics studies. The curriculum meets and exceeds the Common Core standards.

The main areas of study for second grade are:

1. Understanding of the base-ten system within 1000. This includes place value with three-digit numbers, skip-counting in fives, tens, and multiples of hundreds, tens, and ones (within 1000) (chapters 6 and 8);
2. Develop fluency with addition and subtraction, including solving word problems, regrouping in addition, and regrouping in subtraction (chapters 1, 3, 4, and 8);
3. Using standard units of measure (chapter 7);
4. Describing and analyzing shapes (chapter 5).

Additional topics we study are time, money, introduction to multiplication, and bar graphs and picture graphs.

This book, 2-A, covers reading the clock (chapter 2), the basic addition and subtraction facts within 18 (chapter 3), regrouping in addition (chapter 4), and geometry (chapter 5). The rest of the topics are covered in the 2-B student worktext.

Some important points to keep in mind when using the curriculum:

- These two books (parts A and B) are like a "framework", but you still have a lot of liberty in planning your child's studies. While addition and subtraction topics are best studied in the order they are presented, feel free to go through the sections on shapes, measurement, clock, and money in any order you like.

  This is especially advisable if your child is either "stuck" or is perhaps getting bored with some particular topic. Sometimes the concept the child was stuck on can become clear after a break from the topic.

- Math Mammoth is mastery-based, which means it concentrates on a few major topics at a time, in order to study them in depth. However, you can still use it in a *spiral* manner, if you prefer. Simply have your child study in 2-3 chapters simultaneously. This type of flexible use of the curriculum enables you to truly individualize the instruction for your child.

- Don't automatically assign all the exercises. Use your judgment, trying to assign just enough for your child's needs. You can use the skipped exercises later for review. For most children, I recommend to start out by assigning about half of the available exercises. Adjust as necessary.

- For review, the curriculum includes a worksheet maker (Internet access required), mixed review lessons, additional cumulative review lessons, and the word problems continually require usage of past concepts. Please see more information about review (and other topics) in the FAQ at **https://www.mathmammoth.com/faq-lightblue.php**

I heartily recommend that you view the full user guide for your grade level, available at **https://www.mathmammoth.com/userguides/**

Lastly, you can find free videos matched to the curriculum at **https://www.mathmammoth.com/videos/**

I wish you success in teaching math!

Maria Miller, the author

Chapter 1: Some Old, Some New
Introduction

The first chapter of *Math Mammoth Grade 2* contains some review, and some new topics. In the first two lessons, we review adding and subtracting two-digit numbers as taught in first grade. Then children review skip-counting using the 100-chart.

Next, the lesson *Fact Families* reviews the connection between addition and subtraction, and introduces a new strategy for missing subtrahend problems (of the type __ − 5 = 4). In these problems, the child can *add* to find the missing total. This actually teaches them algebraic thinking.

Then we go on to the "new", starting with ordinal numbers, which are probably familiar from common language. In the lesson *Subtracting Whole Tens* children subtract *mentally* any number of whole tens from a two-digit number, such as 72 − 40.

Even and odd numbers are presented in the context of equal sharing: if you can share that many objects evenly (equally), then the number is even. Children may need to use manipulatives to grasp this idea.

Then we study doubling and halving. Don't skip the simple word problems included in these lessons; they are very important. Children need to learn to apply the concepts they have just learned. Also, if the child cannot solve simple word problems that involve doubling or halving, there is a good chance the child did not actually learn those concepts.

Keep in mind that the specific lessons in the chapter can take several days to finish. They are not "daily lessons." Instead, use the general guideline that second graders should finish 1.5-2 pages daily or 8-10 pages a week. Please see the user guide at https://www.mathmammoth.com/userguides/ for more guidance on pacing the curriculum.

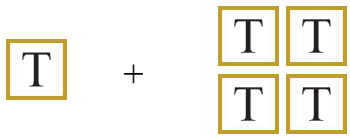
Also, don't forget to check out the free videos matched to the curriculum at https://www.mathmammoth.com/videos/.

The Lessons in Chapter 1

	page	span
Some Review	9	*2 pages*
The 100-Chart and More Review	11	*3 pages*
Fact Families	14	*2 pages*
Ordinal Numbers	16	*2 pages*
Even and Odd Numbers	18	*2 pages*
Doubling	20	*3 pages*
One-Half	23	*2 pages*
Adding with Whole Tens	25	*3 pages*
Subtracting Whole Tens	28	*2 pages*
Review Chapter 1	30	*2 pages*

Some Review

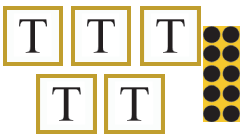
1. The box with a "T" means a TEN. The dots are ONES. Write the additions.

a.	**b.** 	**c.**
32 + *7* = *39*	_____ + _____ = _____	_____ + _____ = _____

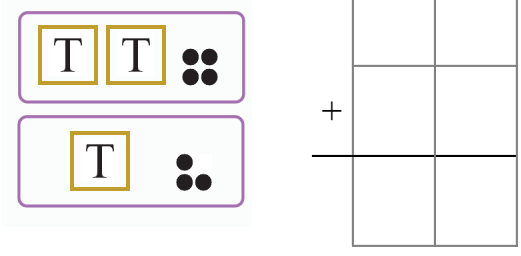
2. Add whole tens. To help, you can draw a ten-box or ten-boxes to the picture.

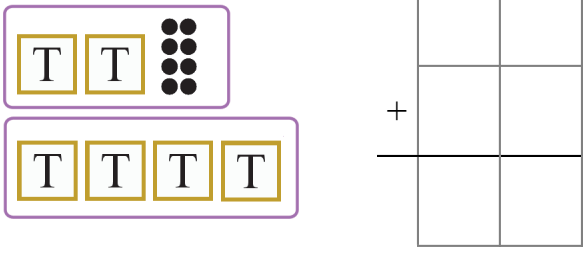
a. 25 + 10 = _____	**b.** 14 + 10 = _____	**c.** 32 + 10 = _____
25 + 20 = _____	14 + 20 = _____	32 + 20 = _____
25 + 30 = _____	14 + 30 = _____	32 + 30 = _____

3. Subtract from 60 or from 30. One of the tens is shown with ten dots instead of a ten-box. Cover some of the dots to subtract.

a. 	60 – 3 = _____ 60 – 8 = _____ 60 – 7 = _____
b.	30 – 4 = _____ 30 – 6 = _____ 30 – 5 = _____

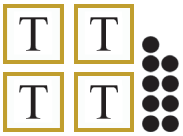
4. Add in columns. The two numbers to be added are shown with dots and ten-boxes.

a. 

b. 

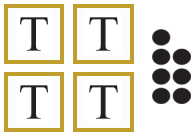
5. Subtract. In (a) and (b) you can cross out things in the picture to help you.

a.



49 – 6 = _____

b.



47 – 16 = _____

c.

	4	5
–	2	3

d.

	9	8
–	6	5

6. Add and subtract.

a.	**b.**	**c.**	**d.**
70 + 6 = _____	30 + 4 + 4 = _____	90 + ____ = 94	60 + _____ = 90
50 + 9 = _____	50 + 7 + 2 = _____	40 + ____ = 47	40 + _____ = 80
e.	**f.**	**g.**	**h.**
70 − 1 = _____	5 − 5 = _____	88 − 8 = _____	50 + _____ = 56
100 − 5 = _____	24 − 4 = _____	57 − 7 = _____	30 + _____ = 39

7. Solve the word problems.

a. Larry bought two boxes of crayons for $6 each,
and some paper for $3.
What was the total cost?

b. Tom has seven marbles, and Leah has five. Leah gave Tom two of hers.
How many more marbles does Tom have now than Leah?

c. Phil has twenty shirts, and ten of them are white.
How many are not white?

d. A book costs $45. Can you buy it if you already
have $22 and your grandma gives you another $20?

The 100-Chart and More Review

1. Skip-count by fives, starting at 5.
   Color these numbers light blue.

2. Skip-count by fives, starting at 6.
   Color these numbers yellow.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

3. Skip-count by twos starting at 2, up to 30.
   Color these numbers pink.

4. Skip-count by twos backwards from 99
   to 71. Color these numbers green.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

5. Skip-count by fours starting at 4.
   Color these numbers yellow.
   It makes an interesting pattern!

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100