

CATCH-UP MATH

Get your child back on track!

Lessons and Activities

2nd Grade

Table of Contents

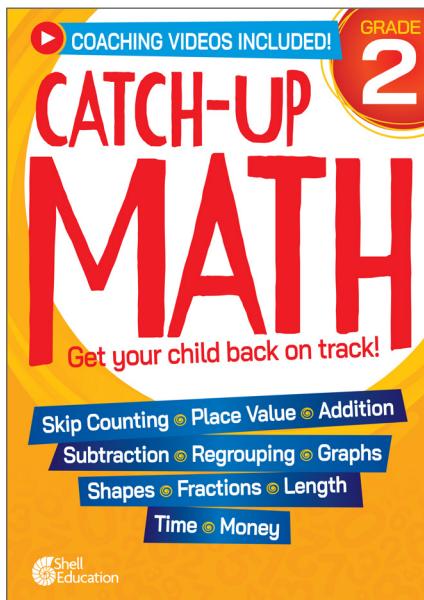
Cover (1 page)

Table of Contents (2 pages)

About Catch-Up Math (1 page)

How to Use the QR Codes in Catch-Up Math (1 page)

Lesson Pages (4 pages)



About Catch-Up Math

The **Catch-Up Math** series enables children to start from scratch when they are struggling with grade-level math. Each book takes math back to the foundation and ensures that all skills learned are consolidated before moving forward. Lots of opportunities to practice and confidence are provided before moving on to new topics.

This new topic is introduced clearly with simple examples, and trial questions (with answers) before the Practice section. To help students understand topics, instructional videos are included through QR codes. This book has 10 chapters that cover a variety of concepts. The chapters are:

1. Whole Numbers	6. Data and Graphs
2. Mental Math	7. Shapes and Areas
3. Place Value	8. Fractions
4. Addition	9. Length
5. Subtraction	10. Time and Money

★ A review section that can be used as an assessment and to check children's progress is included at the end of each chapter.

★ Answers are at the back of the book.

How to Use This Book

Children can work through the pages from front to back, or from individual topics to reinforce areas where they are struggling. The topics are introduced with:

- clear instructions, using simple language
- completed examples and incomplete examples before moving on to the Your Turn sections
- videos linked by QR codes to provide additional clarity for difficult concepts

WHOLE NUMBERS

Count by Tens

When you count by tens, you count every 10th number.

Example 1: Start at 0, and count by tens. All the numbers will end in 0.
0, 10, 20, 30, 40...

Example 2: You can also count by tens when you start at any number. This means you add 10 also more.
1, 11, 21, 31...

Example 3: You can also count backward by tens.
90, 80, 70, 60...

Your Turn: Count by tens. Write the missing numbers.

a 20, 30, 40, 50, 60
b _____, 21, 31, 41, _____

SELF CHECK: Mark how you feel!

Check your answer: How many did you get correct?

166444-Catch-Up Math



COACHING VIDEOS INCLUDED!

GRADE

2

CATCH-UP MATH

Get your child back on track!

Skip Counting ◯ Place Value ◯ Addition

Subtraction ◯ Regrouping ◯ Graphs

Shapes ◯ Fractions ◯ Length

Time ◯ Money

Contents

About Catch-Up Math.....	5
How to Use the QR Codes in Catch-Up Math.....	6
Math Skills.....	7

1. WHOLE NUMBERS

Read and Write Whole Numbers	9
Count by Tens.....	11
Count by Fives	13
Count by Twenty-Fives.....	15
Count by Hundreds	17
Odd and Even Numbers.....	19
Add Odd and Even Numbers	21
One-Step Word Problems	23
Two-Step Word Problems	26
Expanded Form	30
Order Numbers.....	33
Whole Numbers Review.....	35

2. MENTAL MATH

Fact Families to 20.....	38
Count On	40
Count Back	43
Make Tens	45
Doubles + or - 1.....	48
Commutative Property.....	50
Addition Facts to 20	52
Subtraction Facts to 20	55
Mental Math Review	57

3. PLACE VALUE

Tens and Ones	61
Greater Than, Less Than, Equal To ..	64
Compare Three-Digit Numbers	67
10 More and 10 Less	70
100 More and 100 Less.....	73
Place Value Review	76

4. ADDITION

Add One- and Two-Digit Numbers ..	79
Use Base-Ten Blocks.....	82
Addition with Number Lines.....	85
Add Tens and Ones	88
Unknown Addends	90
Add Three Numbers	92
Addition with Regrouping	95
Standard Addition Algorithm	98
Add Three-Digit Numbers	101
Addition Review	104

5. SUBTRACTION

Subtract One-Digit Numbers from Two-Digit Numbers.....	110
Subtraction with Base-Ten Blocks ..	113
Subtraction with Number Lines	116
Subtract Tens and Ones	119
Add to Subtract	121
Subtraction with Regrouping	123
Standard Subtraction Algorithm.....	126
Subtraction with Three-Digit Numbers.....	129
Subtraction Review	132

Contents

6. DATA AND GRAPHS

Charts	137
Picture Graphs	141
Bar Graphs	145
Line Plots	150
Data and Graphs Review	155

7. SHAPES AND ARRAYS

Shape Attributes	159
Make New Shapes	161
Understanding Arrays	164
Arrays with Rectangles	166
Add Arrays	168
Shapes and Arrays Review	170

8. FRACTIONS

Equal Parts	172
Partition Rectangles	174
Partition Circles	176
Naming Fractions	178
Fractions Review	181

9. LENGTH

Measurement Tools	184
Measurement Units	187
Inches and Centimeters	190
Compare Lengths	192
Estimate Lengths	195
Length Word Problems	197
Length Review	199

10. TIME AND MONEY

Digital Clocks	205
Analog Clocks: 00 and 30	207
Analog Clocks: 15 and 45	209
Five-Minute Intervals	211
Elapsed Time	213
Adding Coins	215
Money Word Problems	217
Time and Money Review	219

ANSWERS

1 Whole Numbers Answers	223
2 Mental Math Answers	226
3 Place Value Answers	229
4 Addition Answers	232
5 Subtraction Answers	235
6 Data and Graphs Answers	238
7 Shapes and Arrays Answers	241
8 Fractions Answers	243
9 Length Answers	244
10 Time and Money Answers	246

About Catch-Up Math

The **Catch-Up Math** series enables children to start from scratch when they are struggling with grade-level math. Each book takes math back to the foundation and ensures that all basic concepts are consolidated before moving forward. Lots of revision and opportunities to practice and build confidence are provided before moving on to new topics.

Each new topic is introduced clearly with simple explanations, examples, and trial questions (with answers) before children move to the Practice section. To help students understand difficult topics, instructional videos are included throughout the book.

This book has 10 chapters that cover a variety of mathematical concepts. The chapters are:

1. Whole Numbers	6. Data and Graphs
2. Mental Math	7. Shapes and Arrays
3. Place Value	8. Fractions
4. Addition	9. Length
5. Subtraction	10. Time and Money

Each Your Turn section contains a **SELF CHECK** for students to use for reflection and self-assessment.

- ★ A review section that can be used as an assessment and to check children's progress is included at the end of each chapter.
- ★ Answers are at the back of the book.



How to Use This Book

Children can work through the pages from front to back or choose individual topics to reinforce areas where they are struggling.

The topics are introduced with:

- clear instructions, using simple language
- completed examples and incomplete examples for students to tackle before moving on to the **Your Turn** sections
- videos linked by QR codes to provide additional instruction and clarify difficult concepts

How to Use the QR Codes in Catch-Up Math

A unique aspect of the **Catch-Up Math** series is the instructional videos.

The videos further explain and clarify various mathematical concepts. The videos are simply accessed via QR codes and can be watched on a phone or tablet. Or, view all the videos by following this

Each video shows the page from the book. An instructor talks through the concepts and examples and demonstrates what children need to do. The solutions to the examples are presented before children tackle the **Your Turn** sections. This careful instruction ensures that children can confidently move on to the following Practice questions. Children should be encouraged to check their **Your Turn** answers before moving on.

10 instructional videos included!

After watching the video, children can confidently complete the **Your Turn** section.

WHOLE NUMBERS

Expanded Form

Numbers can be written in expanded form. This form shows the value of each digit.

You can use base-ten blocks to show the expanded form of a number.

Example 1: In base-ten blocks, 154 would look like this:

Expanded Word Form: 1 hundred + 5 tens + 4 ones

Expanded Form: $100 + 50 + 4$

Example 2: What is 238 in expanded word form and expanded form?

Expanded Word Form: 2 hundreds + 3 tens + 8 ones

Expanded Form: 200 + 30 + 8

Example 3: What is the value of each digit?
826

The 8 is in the hundred place. So it is worth 800.

The 2 is in the tens place. So it is worth 20.

The 6 is in the ones place. So it is worth 6.

Your turn

- 1 Write each number in expanded form.
a $582 = \underline{500} + \underline{80} + \underline{2}$
b $369 = \underline{\quad} + \underline{\quad} + \underline{\quad}$
c $453 = \underline{\quad} + \underline{\quad} + \underline{\quad}$
d $712 = \underline{\quad} + \underline{\quad} + \underline{\quad}$
- 2 Write the value of each underlined digit.
a $638 = \underline{600}$
b $245 = \underline{\quad}$ c $167 = \underline{\quad}$ d $315 = \underline{\quad}$

SELF CHECK **Mark how you feel**

Got It! Need help... I don't get it

Check your answers
How many did you get correct?

Read and Write Whole Numbers

Whole numbers are the numbers that you count.
A whole number is made up of digits.

Numbers are often shown as digits, such as 1, 2, and 3. Numbers can also be shown as words. The number 22 can be written as *twenty-two*.

Example 1: Write 156 in words. **one hundred fifty-six**

Example 2: Write seventy-two as a number. **72**

Use these terms to write numbers in word form.

Tens	Ones
ten	one
twenty	two
thirty	three
forty	four
fifty	five
sixty	six
seventy	seven
eighty	eight
ninety	nine

Use a hyphen to write 21 to 99 in words. For example, 45 is written as *forty-five*.



Your turn

1 Write the numbers or words.

154 **one hundred fifty-four**

a 46 _____

b _____ two hundred twenty

c 88 _____

d _____ seventy-three

SELF CHECK

Mark how you feel

Got it!



Need help...



I don't get it



Check your answers

How many did you get correct?



1 Write the words as numbers.

25 twenty-five 25

a ninety-two _____

b sixty-five _____

c twenty-three _____

d twelve _____

e ninety-nine _____

f fifty-nine _____

g one hundred thirty-four _____

h two hundred seventy-two _____

i three hundred forty _____

j one hundred seven _____

k five hundred eleven _____

2 Write the numbers as words.

43 forty-three

a 31 _____

b 87 _____

c 25 _____

d 55 _____

e 60 _____

f 143 _____

g 215 _____

h 378 _____

i 201 _____

j 450 _____

Count by Tens

When you count by tens, you count every 10th number.

Example 1: Start at 0, and count by tens. All the numbers will end in 0.

10, 20, 30, 40...

Example 2: You can also count by tens when you start at any number. This means you add 10 more.

1, 11, 21, 31...

Example 3: You can also count backward by tens.

90, 80, 70, 60...

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

Look for patterns when counting by tens. The number in the tens place changes. The number in the ones place does not.



Your turn

1

Count by tens. Write the missing numbers.

20, 30, 40, 50, 60

a 30, 40, , 60,

b , 21, 31, 41,

SELF CHECK

Mark how you feel

Got it!



Need help...



I don't get it



Check your answers

How many did you get correct?

1 Count forward by tens. Write the missing numbers.

10, 20, 30, 40, 50, 60

a 30, _____, 50, _____ 70, 80

b 10, _____, _____, 40, _____, _____

c 20, _____, _____, _____, 60, 70

d 50, _____, _____, _____, 90, 100

e 40, _____, _____, _____, _____, 90

2 Count backward by tens. Write the missing numbers.

80, 70, 60, 50, 40, 30

a 70, _____, _____, 40, 30, _____

b 90, 80, _____, _____, 50, 40

c 40, _____, _____, _____, 0

d 80, _____, 60, _____, 40, _____

e 60, _____, _____, _____, _____, 10

3 Count by tens to complete each column in the hundred chart.

1	2	3	4		6	7	8	9	10
11	12	13	14		16	17			20
21		23	24		26	27	28		30
31		33	34			37			
41		43	44	45		47	48		
51		53	54	55		57			
61			64	65	66	67	68	69	
71			74	75	76			79	
81			84	85	86		88	89	
91		93	94	95	96			99	