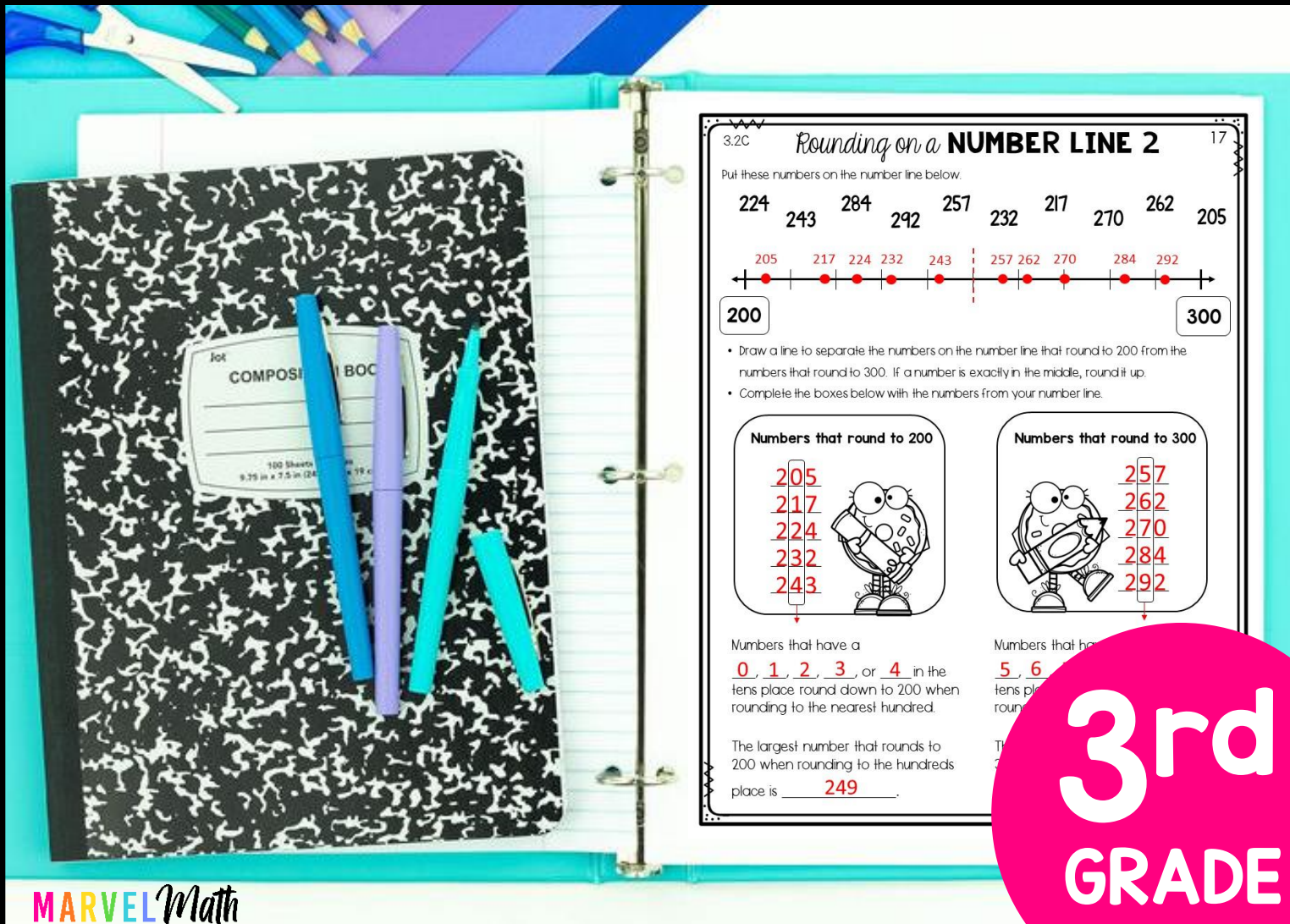


PLACE VALUE

TEKS Notebook



Easy-to-Use Student Pages

3.2B

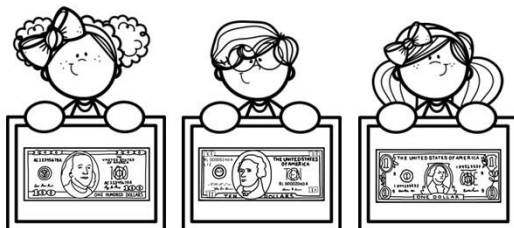
PLACE VALUE Relationships with money

13

10x
Greater

$$100 = 10 \times \underline{\quad}$$

$$10 = 1 \times \underline{\quad}$$



\$

Write the
value of
each digit.

This value This value This value

is $\frac{\quad}{\quad} \times$ greater than
is $\frac{\quad}{\quad} \times$ greater than

\$ 2, 222

The value of the underlined digit is $\underline{\quad}$ times the value of the circled digit.

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3.2A

Quick Guide to EXPANDED NOTATION

9



($\underline{\quad}$ $\times$ 100,000)	($\underline{3}$ $\times$ 10,000)	($\underline{2}$ $\times$ 1,000)	($\underline{4}$ $\times$ 100)	($\underline{\quad}$ $\times$ 10)	($\underline{5}$ $\times$ 1)
	3	2	4	0	5

1 Use the digit in each place and multiply it by the value of that place. Put parentheses around each expression. Always think of the multiplication "x" symbol as "groups of."

Example: ($3 \times 10,000$)

2 Start with the digit on the left and write each expression. Whenever the digit 0 is in a place, you can skip that place.
Example: ($3 \times 10,000$) ($2 \times 1,000$) (4×100) (5×1)

3 Write an addition symbol between each expression.
Example: ($3 \times 10,000$) + ($2 \times 1,000$) + (4×100) + (5×1)

Try these:

9,706 ($9 \times 1,000$) + (7×100) + (6×1)

50,263 ($5 \times 10,000$) + (2×100) + (6×10) + (3×1)

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Teaches Every Place Value Topic

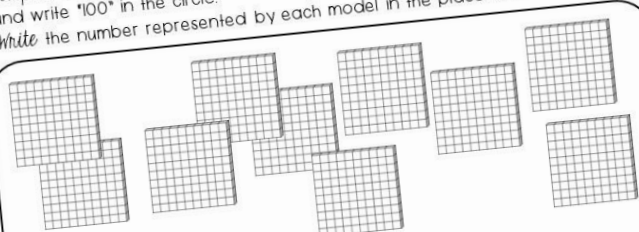
- Expanded Form
- Expanded Notation
- Word Form
- Describing Place Value relationships in the Base-10 Number System
- Representing Numbers on a Number Line
- Comparing and Ordering Whole Numbers up to 100,000
- Rounding on a Number Line

3.2A

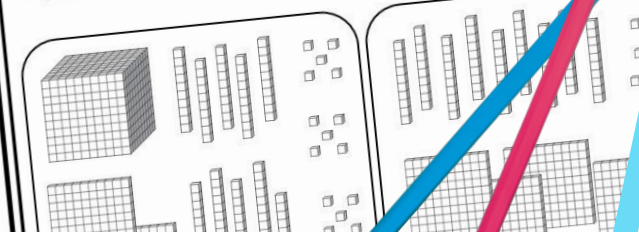
Composing NUMBERS

with Base-10 Blocks

Compose units of higher value when possible. For example, circle 10 ten's and write "100" in the circle.
Write the number represented by each model in the place value chart.



One thousands	Hundreds	Tens	Ones



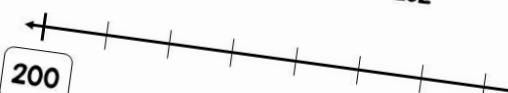
One thousands	Hundreds	Tens	Ones

3.2C

Rounding on a NUMBER LINE

Put these numbers on the number line below.

224 243 284 292 257 232 217



200

Draw a line to separate the numbers on the number line that round to the middle.

3.2A

Mystery VALUES



Read the description of the value of each number. Fill in the place value chart to reveal the number.

4 thousands, 6 hundreds, 2 tens.

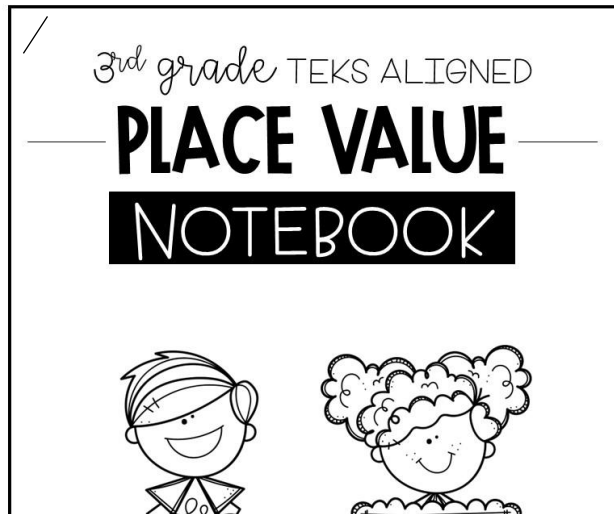
3 ten thousands, 9 tens, 4 ones

7 ten thousands

Hundred Thousands	Ten Thousands	One Thousands	Hundreds	Tens	Ones

No Cutting or Gluing Required

- Make stapled packets
- 3-hole punch to use in a binder
- Make the most of class time



3.2A 9

Quick Guide to EXPANDED NOTATION



(<u> </u> x 100,000)	(<u> </u> x 10,000)	(<u> </u> x 1,000)	(<u> </u> x 100)	(<u> </u> x 10)	(<u> </u> x 1)

1 Use the digit in each place and multiply it by the value of that place. Put parentheses around each expression. Always think of the multiplication "x" symbol as "groups of."
Example:

2 Start with the digit on the left and write each expression. Whenever the digit 0 is in a place, you can skip that place.
Example:

3 Write an addition symbol between each expression.
Example:

Try these:

9,706 _____

50,263 _____

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Essential Vocabulary

Easy-to-Use Student Reference Tool

MARVELMath

ESSENTIAL PLACE VALUE VOCABULARY

Term	Picture or Example	Definition
Round	538 rounded to the nearest ten is 540	To find the nearest ten, hundred, thousand, and so on, to help estimate or check for reasonableness.
Standard Form	345	The "regular" way a number is written.
Word Form	Three hundred forty-five	Digits and place values are written in words.
Expanded Form	$300 + 40 + 5$	A way to write a number that shows the value of each digit.
Expanded Notation	$(3 \times 100) + (4 \times 10) + (5 \times 1)$	A way to write a number that shows the place value of each digit.

ESSENTIAL PLACE VALUE VOCABULARY

Term	Picture or Example	Definition
Round		
Standard Form		
Word Form		
Expanded Form		
Expanded Notation		

Built for the TEKS

PLACE VALUE table of contents

TOPIC	TEKS	Page(s)
Place Value Vocabulary	All	1-2
Representing Numbers with Base-10 Blocks	3.2A	3
Composing Numbers with Base-10 Blocks	3.2A	4
Mystery Values	3.2A	5
Representing Numbers with Expanded Form	3.2A	6
Quick Guide to Expanded Form	3.2A	7
Representing Numbers with Expanded Notation	3.2A	8
Quick Guide to Expanded Notation	3.2A	9
Quick Guide to Word Form	3.2A	10
Ways to Write Whole Numbers	3.2A	11
10x Place Value Relationships	3.2B	12
Place Value Relationships with money	3.2B	13
Comparing Whole Numbers	3.2D	14
Ordering Whole Numbers	3.2D	15
		16

Teacher Key Included

3.2C

Rounding on a NUMBER LINE

Put these numbers on the number line below.

85 82 83 81 87 86 89 80 84 88

80 90

- Draw a line to separate the numbers on the number line that round to 80 from the numbers that round to 90. If a number is exactly in the middle, round it up.
- Complete the boxes below with the numbers from your number line.

Numbers that round to 80

80
81
82
83
84

Numbers that round to 90

85
86
87
88
89

Numbers that have a 3, or 4 in the ones place round down to 80 when rounding to the nearest ten.

The smallest number that rounds to 80 when rounding to the tens place is 84.

Numbers that have a 5, 6, 7, 8, or 9 in the ones place round up to 90 when rounding to the nearest ten.

The smallest number that rounds to 90 when rounding to the tens place is 85.

3.2C

Rounding on a NUMBER LINE

Put these numbers on the number line below.

85 82 83 81 87 86 89 80 84 88

80 90

- Draw a line to separate the numbers on the number line that round to 80 from the numbers that round to 90. If a number is exactly in the middle, round it up.
- Complete the boxes below with the numbers from your number line.

Numbers that round to 80

80
81
82
83
84

Numbers that round to 90

85
86
87
88
89

Numbers that have a 3, or 4 in the ones place round down to 80 when rounding to the nearest ten.

The smallest number that rounds to 80 when rounding to the tens place is 84.

Numbers that have a 5, 6, 7, 8, or 9 in the ones place round up to 90 when rounding to the nearest ten.

The smallest number that rounds to 90 when rounding to the tens place is 85.

Resource Includes

-  **18 Student Pages**
-  **Pages to introduce all the Place Value TEKS**
-  **Detailed Teacher KEY**
-  **Essential Vocabulary Section**



About the Author

This resource was created by Melissa Johnson, who has 16 years of k-10 teaching experience and a masters degree in Mathematics Education. Her resources build conceptual understanding, make connections between math topics and engage students in the mathematics they are learning.

