General Information

Lesson Parts & Duration

Total Duration: 2 to 2 ½ hours

- Segment 1: Place Value: Writing Numbers in Expanded Form (60 Minutes)
- Segment 2: Place Value: Value of Digits (45-60 Minutes)
- Segment 3: Game: "Mystery Numbers" (30-45 Minutes)

Subject(s)

- Place Value Through the Hundred- Thousands Place: Value of Digits; Expanded Form (4.NBT.2a)

Objective

- Students will write numbers in expanded form through the hundred-thousands place.
- Students will use expanded form to explain place value through the hundred-thousands place.
- Students will read and write whole numbers through the hundred-thousands place.
- Students will use expanded form and place value to explain the value of digits through the hundred-thousands place.
- Students will use place value knowledge of digits, their values, and expanded form to solve mystery numbers using clues.

Materials

- blank paper (graph paper if possible)
- pencils
- document camera or whiteboard
- **Optional:** printable "Exit Slips" (page 13)
- **Optional:** printable "Place Value: Expanded Form" (page 14)
- **Optional:** printable "Expanded Form and Value of Digits" (page 15)
- **Optional:** printable "Mystery Numbers" (page 16)
- **Optional:** printable "Break Up Your Day" brain/movement break ideas (page 17)

Instructional Setting

- Students should be seated with or near another student for partner work.

Throughout these lessons, you will find:

- ***Scripted Text*** indicates things that need to be said directly. Bullets starting with a **"T"** followed by *italicized type* indicate scripted text
- **Clarifiers** within scripted text are in orange
- **Teacher Directions** indicate things you should be doing
- **Side notes** provide helpful hints, ELL strategies, differentiation and information
- **Break Up Your Day** (Brain/Movement Breaks) are in green boxes (at the end)

Remember!

Quality over quantity. All components do not have to be accomplished; lessons may be ended at any time and resumed later.

Instructional Plan: Segment 1: 60 minutes

Subject

- Place Value: Writing Numbers in Expanded Form Through the Hundred-Thousands Place

Objective

- Students will write numbers in expanded form through the hundred-thousands place.
- Students will read and write whole numbers through the hundred-thousands place.

Materials

- blank paper (graph paper if possible; this will help with keeping their place value chart lined up)
- pencils
- document camera or whiteboard
- **Optional:** printable "Place Value: Expanded Form" (page 14) –or- project it for students to copy
- **Optional:** printable "Exit Slip" (page 13) –or- project it for students to copy

Introduction

T *All digits have a "place" which shows the digit's quantity. Numbers can be compared when you know the digit's place value.*

T *Place value happens in real life.*

T *For example, if you had 9 one dollar bills, 7 ten dollar bills, and 5 one-hundred dollar bills you could count the bills in their place values and calculate the amount of cash.*

T *1-hundred-dollar bill has a value of $100, so 5 one-hundred dollar bills has a value of $500.*

T *1 ten-dollar bill has the value of $10, so 7 ten-dollar bill have a value of $70*

T *And finally, a 1 dollar bill has a value of $1, so 9 one dollar bills have a value of $9 9*

T *If I were to add all of those up, how much money would I have?* **Call on students. Answer $579.**

T *I would have $579, we were able to figure that out by adding all the values together.*

T *Today we will be using what we know about place value and how it affects the value of a digit in a number to write out numbers in expanded value form.*

Setting up the Paper

Pass out a piece of paper to each student. Graph paper if possible to help in creating a place value chart.

T *Write your name and date in the top right hand corner of your paper.* **See example & model so students can follow.**

T *Then title your paper "Place Value" and below it write: "I can read and write whole numbers and put them in expanded form."* **See example & model so students can follow.**

T *Next, we will define 2 key vocabulary terms.*

T *The first is expanded form.*

T *We will define this as: "write a number to show the value of each digit."* **See example & model so students can follow.**

T *The next important term is digit.*

T *A digit is any number 0 to 9.* **See example & model so students can follow.**

T *Only 1 digit fits in each place on a place value chart.*

Name & Date

Place Value

I can read and write whole numbers in expanded form.

Expanded Form write a number to show the value of each digit.

Digit: Any number 0 to 9

Example: 145, 206

Hundred-Thousands	Ten-Thousands	Thousands	,	Hundreds	Tens	Ones
1	4	5		2	0	6

- ***T*** *Let's write an example number to start with, please write the number 145,206.* See example & model so students can follow.
- ***T*** *We are going to start by creating a place value chart through the hundred-thousands place.* See example & model so students can follow.
- ***T*** *This is going to help us to determine the value of different digits within a number.*

Allow time for students to complete their chart on their notes page before moving on. Monitor students and provide assistance as needed.

- ***T*** *Now that we have created our place value chart, let's see if you can place the digits from the number 145,206 in the correct places on this chart.*
- ***T*** *Raise your hand once you have put your numbers on your chart so that I can quickly check your work.*
- ***T*** *Remember, only 1 digit can be in each place.*

Name & Date

Place Value

I can read and write whole numbers in expanded form.

Expanded Form write a number to show the value of each digit.

Digit: Any number 0 to 9

Example: 145, 206

Hundred-Thousands	Ten-Thousands	Thousands	,	Hundreds	Tens	Ones
1	4	5		2	0	6
						6
					0	0
				2	0	0
		5	,	0	0	0
	4	0	,	0	0	0
1	0	0	,	0	0	0

Allow time for students to complete filling in the numbers on their place value chart. Check their work once they raise their hand and provide assistance as needed.

- ***T*** *Now starting in the ones place we will use one new row per digit to identify the value.*
- ***T*** *Let me show you what I mean.*
- ***T*** *There is a 6 in the ones place, what is the value of the digit 6 if it is in the ones place?* Call on a student. Answer: The value is 6.
- ***T*** *Let's record a 6 on the next row.* See example & model so students can follow.
- ***T*** *There is a 0 in the ones place, what is the value of the digit 0 if it is in the tens place?* Call on a student. Answer: The value is 0.
- ***T*** *Let's record a 0 in the tens place and a 0 in the ones place on the next row.* See example & model so students can follow.
- ***T*** *There is a 2 in the hundreds place, what is the value of the digit 2 if it is in the hundreds place?* Call on a student. Answer: The value is 200.
- ***T*** *Let's record a 2 in the hundreds place, a 0 in the tens place and a 0 in the ones place on the next row.* See example & model so students can follow.
- ***T*** *There is a 5 in the thousands place, what is the value of the digit 5 if it is in the thousands place?* Call on a student. Answer: The value is 5,000.
- ***T*** *Let's record a 5 in the thousands place, then a comma, a 0 in the hundreds place, a 0 in the tens place and a 0 in the ones place on the next row.* See example & model so students can follow.
- ***T*** *There is a 4 in the ten-thousands place, what is the value of the digit 4 if it is in the ten-thousands place?* Call on a student. Answer: The value is 40,000.
- ***T*** *Let's record a 4 in the ten-thousands place, a 0 in the thousands place, then a comma, a 0 in the hundreds place, a 0 in the tens place and a 0 in the ones place on the next row.* See example & model so students can follow.
- ***T*** *There is a 1 in the hundred-thousands place, what is the value of the digit 1 if it is in the hundred-thousands place?* Call on a student. Answer: The value is 100,000.
- ***T*** *Let's record a 1 in the hundred-thousands place, a 0 in the ten-thousands place, a 0 in the thousands place, then a comma, a 0 in the hundreds place, a 0 in the tens place and a 0 in the ones place on the next row.* See example & model so students can follow.
- ***T*** *Now we have identified the value of each digit in our number.*
- ***T*** *Turn and tell a person next or near you what pattern you notice when looking at each of these values.*

Allow time for students to discuss with a partner. Monitor students and ensure they are on topic.

- ***T*** *Who would like to share the pattern that they noticed with the class?* Call on students to share. Answer: the digits to the right are all 0's.
- ***T*** *So, we can notice that the digits to the right of the one we are addressing become a 0.*
- ***T*** *When we are writing out a number in expanded form, we are simply pulling the number apart digit by digit, but still showing that all the values go together by writing it as an addition problem.*
- ***T*** *On our chart, you may have noticed we started in the ones place.*
- ***T*** *When we are writing a number in expanded form, we always start at the greatest or largest value and work our way down to the least or smallest value.*
- ***T*** *So, in this case we will start in the hundred-thousands place.*
- ***T*** *Below our chart, let's use the values of each digit we just identified to create an addition problem.*
- ***T*** *Let's all write the number "145, 206 =" below our chart.* See example & model so students can follow.
- ***T*** *Starting in the hundred-thousands place, what is the first value in our addition problem to show expanded form?* Call on a student. Answer: 100,000.
- ***T*** *Next, we will write a plus sign and then move to the next digit to the right, which is the 4.*
- ***T*** *What as the value of the digit in the ten-thousands place?* Call on a student. Answer: 40,000.
- ***T*** *Please write down 40,000 and then a plus sign.*
- ***T*** *Now we need to indicate the value of the digit in the thousands place.*
- ***T*** *What is the value of the digit in the thousands place?* Call on a student. Answer: 5,000.
- ***T*** *Please write down 5,000 and then a plus sign.*
- ***T*** *Moving over another place to the right we have the hundreds place.*
- ***T*** *What is the value of the digit in the hundreds place?* Call on a student. Answer: 200
- ***T*** *Please write down 200 and then a plus sign.*
- ***T*** *Now, onto the tens place, what is the value of the digit in the tens place?* Call on a student. Answer: 0
- ***T*** *To record this we can either write a 0 in our equation or we can skip that place.*
- ***T*** *Last, we need to write the value of the digit in the ones place.*
- ***T*** *What is the value of the 6 in the ones place?*
- ***T*** *Please write down 6.*
- ***T*** *So, the expanded form for 145,206 should look like "145,206 = 100,000 + 40,000 + 5,000 + 200 + 6."*

Name & Date

Place Value

I can read and write whole numbers in expanded form.

Expanded Form write a number to show the value of each digit.

Digit: Any number 0 to 9

Example: 145, 206

Hundred-Thousands	Ten-Thousands	Thousands	,	Hundreds	Tens	Ones
1	4	5		2	0	6
						6
					0	0
				2	0	0
		5	,	0	0	0
	4	0	,	0	0	0
1	0	0	,	0	0	0

145,206 = 100,000 + 40,000 + 5,000 + 200 + 6

Value of Digits and Expanded Form Practice

- ***T*** *We will need a partner for to help us practice.*
- ***T*** *Please count up the number of letters in your first name.*
- ***T*** *I would like you to find a partner whose name has the same amount of letters.*
- ***T*** *If you are unable to find a partner I will pair you up.*

Allow students to find a partner, if they are unable to find a partner, simply pair them up. You may need to check in with the partners to be sure they really found someone with the same number of letters and they are not just picking someone they would like to work with.

- ***T*** *With your partner, you will practice identifying values of digits within a number and writing numbers in expanded form.*

Pass out the "Place Value: Expanded Form" sheet to each student or project it for students to copy onto a sheet of blank paper. Allow 10-15 minutes to complete. If time allows you may want to review the answers as a whole class before moving onto the assessment component.

Differentiation:

Struggling Students: Pull groups of students who are having difficulty and work with them as a small group.

Early Finishers: Have them flip their papers over any test their partner on the value of digits in different numbers.

Name: ANSWER KEY Date: _____

Place Value: Expanded Form

Directions: Expand the number in bold by indicating the value of each digit.

	Digit	=	Hundred-Thousand's Place	+	Ten-Thousand's Place	+	Thousand's Place	+	Hundred's Place	+	Ten's Place	+	One's Place
1)	6,243	=	0	+	0	+	6,000	+	200	+	40	+	3
2)	78,258	=	0	+	70,000	+	8,000	+	200	+	50	+	8
3)	14,583	=	0	+	10,000	+	4,000	+	500	+	80	+	3
4)	5,902	=	0	+	0	+	5,000	+	900	+	0	+	2
5)	189,242	=	100,000	+	80,000	+	9,000	+	200	+	40	+	2
6)	25,081	=	0	+	20,000	+	5,000	+	0	+	80	+	1
7)	3,002	=	0	+	0	+	3,000	+	0	+	0	+	2
8)	986,437	=	900,000	+	80,000	+	6,000	+	400	+	30	+	7
9)	39,161	=	0	+	30,000	+	9,000	+	100	+	60	+	1
10)	763,322	=	700,000	+	60,000	+	3,000	+	300	+	20	+	2

*You may use the exit slip at the end of this lesson as a quick assessment of student understanding. Either print them out (page 13), or simply have students copy the problems on a half sheet of paper.

Make sure to "Break Up Your Day!"

Now is a great time to take a break and get students re-energized.

See our list of engaging movement and brain break ideas to get your students moving and ready to refocus! (see page 17)

Name: ANSWER KEY Date: _____

Exit Slip: Segment 1

Place Value: Expanded Form

Directions: Expand the number in bold to indicate the value of each digit.

		=	Hundred - Thousand's Place	+	Ten- Thousand's Place	+	Thousand's Place	+	Hundred's Place	+	Ten's Place	+	One's Place
1)	**595,300**	=	500,000	+	90,000	+	5,000	+	300	+	0	+	0
2)	**89,724**	=	0	+	80,000	+	9,000	+	700	+	20	+	4
3)	**323,185**	=	300,000	+	20,000	+	3,000	+	100	+	80	+	5
4)	**5,902**	=	0	+	0	+	5,000	+	900	+	0	+	2

Instructional Plan: Segment 2: 45-60 minutes

Subject

- Place Value: The Value of Digits

Objective

- Students will use expanded form and place value to explain the value of digits through the hundred-thousands place.
- Students will read and write whole numbers through the hundred-thousands place.

Materials

- blank paper
- pencil & crayons/colored pencils
- document camera or whiteboard
- **Optional:** printable "Expanded Form and Value of Digits" (page 15) –or- project it for students to copy
- **Optional:** printable "Exit Slip" (page 13) –or- project it for students to copy

Introduction

T *The place value of a number affects the value of a digit.*

T *By moving a digit around on a place value chart, I affect the value of that digit.*

T *Using our knowledge of place value, we can create numbers that are 10 more or 10 less, 100 more or 100 less, 1,000 more or 1,000 less, etc.*

T *I am going to start by telling you a little story.*

The Phone Number Mistake

One day a very young boy wanted to call his grandmother. He has the number written down as 435-2987. He picks up the phone and dials the number as 453-2987 into the phone. The phone rings twice and a man answers the phone, "Hello, this is Steve." The boy looks at the phone very confused and worried. That wasn't his grandmother. He looked back at the paper where the phone number was written. He realized what had happened. His grandmother's phone number begins with 435, not 453. The boy remembered the digits, but not their place value.

T *The message of this story is an important one.*

T *When we put numbers in a different order the value or the meaning of those numbers change.*

T *Although the numbers 435 and 453 are similar, they both share the same digits; the order of digits really matters!*

T *Today we will continue to write our numbers in expanded form and identify both the value of digits and their place value.*

T *Last, we will try to modify numbers by increasing and decreasing their values; just as the boy in our story modified or changed the value of his grandmother's phone number.*

Either give each student a copy of "Expanded Form and Value of Digits" sheet or give them each 1 piece of blank paper and project the "Expanded Form and Value of Digits" sheet for students to copy.

Setting up the Paper If you are having students copy the problems on blank paper.

- ***T*** *On your piece of paper please write your name and date in the top right hand corner of your paper.* See example & model so students can follow.
- ***T*** *Then title your paper, "Expanded Form."*
- ***T*** *We will start by writing out an example to help us.*
- ***T*** *Write, "Example: 975,400 = 900,000 + 70,000 + 5,000 + 400."*

If you printed out the sheet for students start here.

- ***T*** *Reading a number out loud is a great way to hear the value of the digits.*
- ***T*** *For our example if I read it slowly to you see if you can hear some of the values.*
- ***T*** *Nine hundred, seventy-five thousand, four hundred.*
- ***T*** *Remember that when you are reading a number it is incorrect to say the word "and" at the comma.*
- ***T*** *We use the word "and" when we are reading a number with a decimal.*
- ***T*** *The comma tells you to pause.*
- ***T*** *For the next 6 problems, I would like you to read each number aloud with a partner.*
- ***T*** *Listen for some of the values when you say the number.*
- ***T*** *Then write the number in expanded form.*
- ***T*** *Please work with someone either next to or near you.*

Name _____ Date _____

Expanded Form

Example: 975,400 = 900,000 + 70,000 + 5,000 + 400

1. **870,032**
2. **34,297**
3. **219,003**
4. **65,541**
5. **497,132**
6. **14,339**

Value of Digits

975,400

1. The digit 5 is in the _____ place.
2. The digit 9 is in the _____ place.
3. The digit 4 is in the _____ place.
4. The value of the digit 9 is _____.
5. The value of the digit 5 is _____.
6. The value of the digit 7 is _____.
7. The 4 stands for _____.
8. The 5 stands for _____.

465, 207

1. The 2 stands for _____ hundreds.
2. The digit 6 is in the _____ place.
3. The value of the digit 4 is _____.
4. The digit in the thousands place is _____.
5. The digit 0 is in the _____ place.
6. The digit 7 is in the _____ place and its value is _____.

Allow time for students to discuss with a partner. Monitor students and ensure they are on topic.

- ***T*** *Ok, let's quickly check your work.*
- ***T*** *Who would like to share their answer for number 1?* Call on student to answer. Answer: 800,000 + 70,000 + 30 + 2.
- ***T*** *Who would like to share their answer for number 2?* Call on student to answer. Answer: 30,000 + 4,000 + 200 + 90 + 7.
- ***T*** *Who would like to share their answer for number 3?* Call on student to answer. Answer: 200,000 + 10,000 + 9,000 + 3.
- ***T*** *Who would like to share their answer for number 4?* Call on student to answer. Answer: 60,000 + 5,000 + 500 + 40 + 1.
- ***T*** *Who would like to share their answer for number 5?* Call on student to answer. Answer: 400,000 +90,000 + 7,000 + 100 + 30 + 2.
- ***T*** *Who would like to share their answer for number 6?* Call on student to answer. Answer: 10,000 + 4,000 + 300 + 30 + 9
- ***T*** *Excellent work!*
- ***T*** *Now your knowledge of using expanded form is going to help you to identify the value of different digits.*
- ***T*** *Your job now is to analyze digits in 2 different numbers: 975,400 and 465,207.*
- ***T*** *Before you start let's analyze a number together as a class.*
- ***T*** *The number is 378,291.* Write this number on the board so that students can look at it while answering questions about the number.

- ***T*** *The 2 stands for?* Call on a student. Answer: 200 or 2 hundreds
- ***T*** *The digit 7 is in _____ place?* Call on a student. Answer: ten-thousands place
- ***T*** *The value of the digit 3 is?* Call on a student. Answer: 300,000
- ***T*** *The digit in the thousands place is?* Call on a student. Answer: 8
- ***T*** *The digit 9 is in the _____ place?* Call on a student. Answer: tens place
- ***T*** *The digit 1 is in the _____place and its value is __?* Call on a student. Answer: ones; 1
- ***T*** *Now, I would like you to stand up with your paper and pencil and find a partner who has the same number of brothers and sisters as you do.*
- ***T*** *If you are an only child you are looking for someone else that is an only child.*
- ***T*** *If you are unable to find a partner, I will find one for you.*

Allow students to find a partner, if they are unable to find a partner, simply pair them up.

- ***T*** *With your partner, you will practice identifying values of digits within a number.*
- ***T*** *It may be helpful to first write your number in expanded form to help you.*
- ***T*** *If you and your partner finish early you can scramble up the digits in these numbers and then try to answer the questions again.*
- ***T*** *Once everyone is finished we will review your answers and then you will have a chance to show your teacher what you have learned by completing similar questions independently!*

Allow 10-15 minutes to complete. If time allows you may want to review the answers as a whole class before moving onto the assessment component.

***You may use the exit slip at the end of this lesson as a quick assessment of student understanding. Either print them out (page 13), or simply have students copy the problems on a half sheet of paper.** Answer Key found on next page.

Name ANSWER KEY Date _____

Expanded Form

Example: 975,400 = 900,000 + 70,000 + 5,000 + 400

1. **870,032** 800,000 + 70,000 + 30 + 2
2. **34,297** 30,000 + 4,000 + 200 + 90 + 7
3. **219,003** 200,000 + 10,000 + 9,000 + 3
4. **65,541** 60,000 + 5,000 + 500 + 40 + 1
5. **497,132** 400,000 +90,000 + 7,000 + 100 + 30 + 2
6. **14,339** 10,000 + 4,000 + 300 + 30 + 9

Value of Digits

975,400

1. The digit 5 is in the thousand's place.
2. The digit 9 is in the hundred-thousand's place.
3. The digit 4 is in the hundred's place.
4. The value of the digit 9 is 900,000.
5. The value of the digit 5 is 5,000.
6. The value of the digit 7 is 70,000.
7. The 4 stands for 400 or 4 hundred.
8. The 5 stands for 5,000 or 5 thousand.

465, 207

1. The 2 stands for 2 hundreds.
2. The digit 6 is in the ten-thousand's place.
3. The value of the digit 4 is 400,000.
4. The digit in the thousands place is 5.
5. The digit 0 is in the tens place.
6. The digit 7 is in the ones place and its value is 7.

Make sure to "Break Up Your Day!"

Now is a great time to take a break and get students re-energized.
See our list of engaging movement and brain break ideas to get your students moving and ready to refocus! (see page 17)

Name: ANSWER KEY Date: _____

Exit Slip: Segment 2

Expanded Form & Value of Digits

695, 724

1. Write this number in expanded form. 600,000 + 90,000 + 5,000 + 700 + 20 + 4
2. The 2 stands for 2 –OR- two hundreds.
3. The digit 6 is in the hundred-thousands place.
4. The value of the digit 9 is 90,000.
5. The digit in the thousands place is 5.
6. The digit 4 is in the one's place.
7. The digit 7 is in the hundreds place and its value is 700.

Instructional Plan: Segment 3: 30-45 minutes

Subject

- Game: "Mystery Numbers"

Objective

- Students will use place value knowledge of digits, their values, and expanded form to solve mystery numbers using clues.

Materials

- blank paper
- pencil
- document camera or whiteboard
- **Optional:** printable "Mystery Numbers" (page 16) –or- project it for students to copy

Either give each student a copy of "Mystery Numbers" or give them each 1 piece of blank paper and project the "Mystery Numbers" sheet for students to copy.

Introduction

T *We have learned about what each place represents in a number and how digits hold a different value depending on where it falls within a number.*

T *We are going to try and solve some riddles using clues to help us figure out the mystery numbers.*

Setting up the Paper If you are having students copy the problems on blank paper.

T *On your piece of paper please write your name and date in the top right hand corner of your paper.* See example & model so students can follow.

T *Then title your paper, "Mystery Numbers."*

T *You will then split your paper into 4 boxes and label each box 1-4* See example & model so students can follow.

You will need to read, write, or project clues for students to copy.

Name _____ Date _____

Mystery Numbers

#1	#2
I am a five-digit number. The sum of all my digits is 19. My hundreds digit is 2 more than my tens digit. I am an odd number. I have 9 ones. My thousands digit is a multiple of 3. I am less than 14,000. What number am I?	I am a six-digit number. The sum of all my digits is 24. I am an even number. I have 2 tens. My ten-thousands digit is greater than 7. I am less than 300,000. There is a 0 in the hundreds place. The digit in the thousands place is 6 more than the hundreds place. What number am I?
#3	**#4**

How to Play

T *You will be working with a partner to try to solve each mystery number.*

T *You will read through the clues to try to determine the mystery number.*

T *Make sure you are working quietly so that no other groups can hear your ideas.*

T *Once you have solved the first two mystery numbers, you will come and have your answers checked by me.*

T *If you and you partner correctly solve the first 2 mystery numbers you will create 2 mystery numbers of your own by writing clues just as I have for mystery numbers 1 and 2.*

T *Once you have finished, you and your partner will switch papers with another group and try to solve their mystery numbers.*

T *They should be able to discover the mystery number with the clues you write.*

T *There is a checklist that I will put up for you to use when writing your clues.*

T *After you create a mystery number of your own, try to read the clues out loud for your partner to try to solve to make sure that your clues work!*

T *Once everyone has finished trying to solve another groups mystery numbers, if we have time I will have a few groups share their mystery numbers with the class!*

Mystery Number Checklist

- I have at least 8 clues
- I use clues that help my partner solve for the mystery number
- There is only one possible number solution to my riddle
- My clues are not too obvious that they give the number away too quickly
- I used complete sentences
- I used mathematical terms appropriately (place value, tens, ones, digits, reasonable)
- I finished with a concluding statement "What number am I?

Make sure to "Break Up Your Day!"

Now is a great time to take a break and get students re-energized.

See our list of engaging movement and brain break ideas to get your students moving and ready to refocus! (see page 17)

Collect students "Mystery Number" papers and leave them for the teacher.

Name: _____Date: _____

Exit Slip: Segment 1

Place Value: Expanded Form

Directions: Expand the number in bold to indicate the value of each digit.

		=	Hundred - Thousand's Place	+	Ten- Thousand's Place	+	Thousand's Place	+	Hundred's Place	+	Ten's Place	+	One's Place
1)	**595,300**	=		+		+		+		+		+	
2)	**89,724**	=		+		+		+		+		+	
3)	**323,185**	=		+		+		+		+		+	
4)	**5,902**	=		+		+		+		+		+	

Name: _____Date: _____

Exit Slip: Segment 2

Expanded Form & Value of Digits

695, 724

8. Write this number in expanded form.

   _____

9. The 2 stands for _____ hundreds.
10. The digit 6 is in the _____ place.
11. The value of the digit 9 is _____.
12. The digit in the thousands place is _____.
13. The digit 4 is in the _____ place.

Name: _____ Date: _____

Place Value: Expanded Form

Directions: Expand the number in bold by indicating the value of each digit.

	Digit	=	Hundred-Thousand's Place	+	Ten-Thousand's Place	+	Thousand's Place	+	Hundred's Place	+	Ten's Place	+	One's Place
1)	**6,243**	=	0	+	0	+	6,000	+	200	+	40	+	3
2)	**78,258**	=	0	+		+	8,000	+		+		+	
3)	**14,583**	=		+	10,000	+		+		+		+	
4)	**5,902**	=		+		+		+		+		+	
5)	**189,242**	=	100,000	+		+		+		+		+	
6)	**25,081**	=		+		+		+		+		+	
7)	**3,002**	=		+		+		+		+		+	
8)	**986,437**	=		+		+		+		+		+	
9)	**39,161**	=		+		+		+		+		+	
10)	**763,322**	=		+		+		+		+		+	

Name _____ Date _____

Expanded Form

Example: 975,400 = 900,000 + 70,000 + 5,000 + 400

1. **870,032**
2. **34,297**
3. **219,003**
4. **65,541**
5. **497,132**
6. **14,339**

Value of Digits

975,400

1. The digit 5 is in the _____ place.
2. The digit 9 is in the _____ place.
3. The digit 4 is in the _____ place.
4. The value of the digit 9 is _____.
5. The value of the digit 5 is _____.
6. The value of the digit 7 is _____.
7. The 4 stands for _____.
8. The 5 stands for _____.

465, 207

1. The 2 stands for _____ hundreds.
2. The digit 6 is in the _____ place.
3. The value of the digit 4 is _____.
4. The digit in the thousands place is _____.
5. The digit 0 is in the _____ place.
6. The digit 7 is in the _____ place and its value is _____.

Name _____ **Date** _____

Mystery Numbers

#1 I am a five-digit number. The sum of all my digits is 19. My hundreds digit is 2 more than my tens digit. I am an odd number. I have 9 ones. My thousands digit is a multiple of 3. I am less than 14,000. What number am I?	**#2** I am a six-digit number. The sum of all my digits is 24. I am an even number. I have 2 tens. My ten-thousands digit is greater than 7. I am less than 300,000. There is a 0 in the hundreds place. The digit in the thousands place is 6 more than the hundreds place. What number am I?
#3	**#4**

Make sure to "Break Up Your Day!"

These can be used in the middle of a lesson or at the end of your lesson.

Here are a few engaging movement and brain break ideas to get your students moving and ready to refocus!

Break Up Your Day: Notation Kid!

- Challenge students to write as many expanded notation 5-digit numbers (to the ten thousands place) as possible in one minute. (example: 15,432 = 10,000 + 5,000 + 400 + 30 + 2, etc.)
- Students trade papers with a shoulder buddy and the buddy counts the correct expanded notations.
- Whoever has the most correct expanded notations may share their facts with the class (if document camera is available) or they simply become the new Notation Kid!

Break Up Your Day: Math Outside

- Students take scratch paper/pencil and find inverse operations outside.
- Students draw and label objects that can be expanded. (examples: 24 trees = 20 + 4, 118 students = 100 + 10 + 8, etc.)

Break Up Your Day: Thumbs Up!

- Student is called on to state their favorite number from 1 to 20, use name cards or equity cards if available.
- Other students signify whether they see that number somewhere in the classroom.
- Tally their responses.
- The number with the most votes or Thumbs Up is the winner for the activity!