

Interactive Math Journal

Place Value Edition

Journal Entries Included:

- Place Value
- Interpreting Place Value
- Representing Whole Numbers
- Rounding
- Comparing and Ordering Whole Numbers



Comparing & Ordering Numbers
All numbers have value. You can compare the value of two numbers by using the following symbols:
Greater Than (>), Equal To (=), Less Than (<)

Place Value
These are the digits that make up numbers in our number system: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.
When these digits create a number, each digit sits in a different place. Each place has a different value.
Example:
5 5 5 5 5
Billions Hundred Millions Tens Thousands Hundreds Tens Units

Rounding
Rounding a number is when you find the nearest group of ten, hundred, thousand, etc. You can round numbers to help estimate answers.

Representing Numbers
Numbers can be represented in a variety of ways.
Standard Form Expanded Form
0 + 30 + 2

Interpreting Place Value
The place and value of a number can change when you multiply or divide by powers of 10.

Multiply	Divide
$23 \times 10 = 230$ The digits move 1 space to the left.	$230 \div 10 = 23$ The digits move 1 space to the right.
$23 \times 100 = 2,300$ The digits move 2 spaces to the left.	$2,300 \div 100 = 23$ The digits move 2 spaces to the right.
$23 \times 1,000 = 23,000$ The digits move 3 spaces to the left.	$23,000 \div 1,000 = 23$ The digits move 3 spaces to the right.

Do you notice a pattern?
When you multiply a number by 10, you add 1 zero to the number you are multiplying.
When you multiply a number by 100, you add 2 zeros to the number you are multiplying.
When you multiply a number by 1,000, you add 3 zeros to the number you are multiplying.
What would happen if you multiply a number by 10,000? 100,000? 1,000,000?

When you divide a number by 10, you remove 1 zero from the number you are dividing.
When you divide a number by 100, you remove 2 zeros from the number you are dividing.
When you divide a number by 1,000, you remove 3 zeros from the number you are dividing.
What would happen if you divide a number by 10,000? 100,000? 1,000,000?

Word Form
Writing the number using only words
even hundred
thirty two

000

Teacher Tips

It is suggested you teach the skills in the following order:

1. Place Value
2. Interpreting Place Value
3. Representing Whole Numbers
4. Rounding Whole Numbers
5. Comparing and Ordering Whole Numbers

Each Skill has 4 different activities/entries, you can use some or all of the activities to include in your math journal.

Possible Instructional Plan

Day 1 – Introduce the skill with the anchor chart.

Day 2 – Create Foldable and use Mini Card Activities

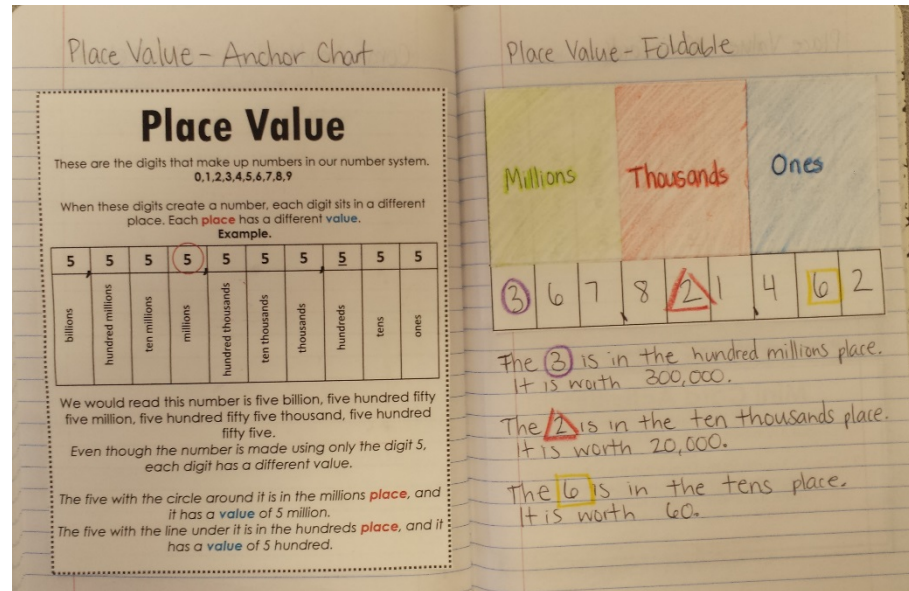
Day 3 – Quick Check

The Mini Cards can be placed in a center if you don't want to include them in the math journal.

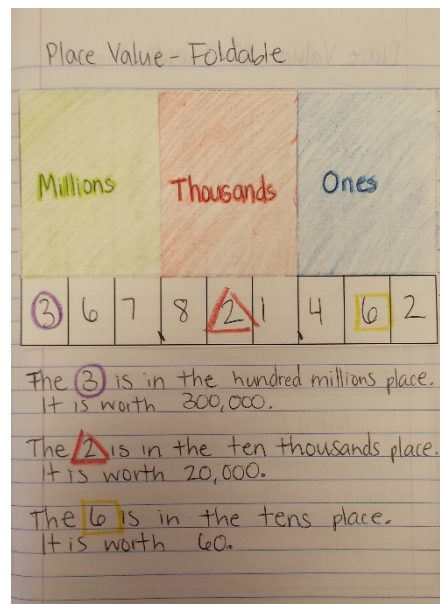
Place Value – Assembly Notes & Directions

Anchor Chart

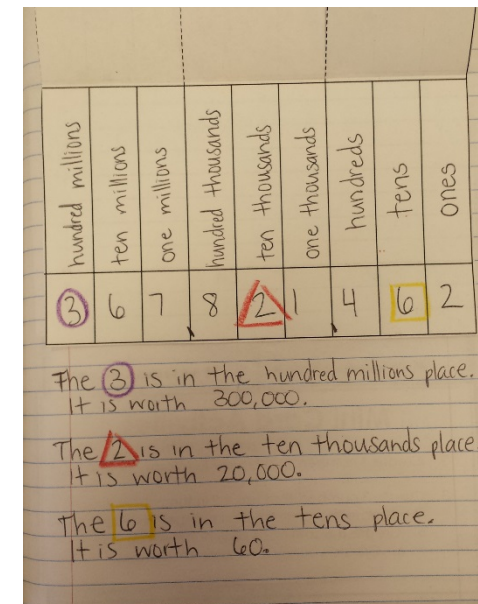
Make enough copies for students. Have students cut and paste in their math journal. Review anchor chart with students as you would a full size anchor chart. Students will be able to reference back to this page if they have questions about place value.



Foldable - Outside



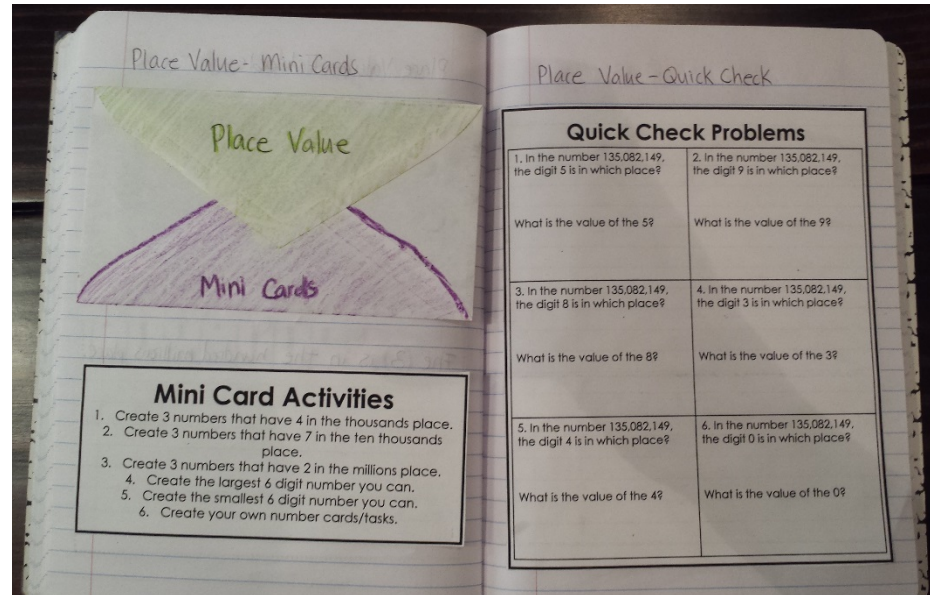
Foldable - Inside



Place Value – Assembly Notes & Directions

Extension Activities

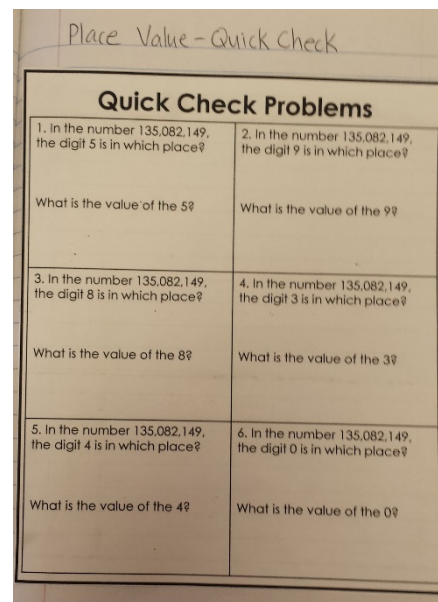
Give each student a copy of the Extension Activities list to place in their journal as well as a copy of the mini cards. Have students glue a small envelope into their math journal to store their mini cards. You can use the mini card activities as an extension or early finisher activity.



Quick Check

Give each student a copy of the Quick Check sheet. Students can glue them in their math journal as a reference page, or you can collect them. The quick check can be used as a formative assessment to see where your students level of mastery is after you have spent a few days practicing the skill.

Quick Check



Quick Check - Key

Quick Check Problems - KEY	
1. In the number 135,082,149, the digit 5 is in which place? One millions place What is the value of the 5? 5,000,000	2. In the number 135,082,149, the digit 9 is in which place? Ones place What is the value of the 9? 9
3. In the number 135,082,149, the digit 8 is in which place? Ten thousands place What is the value of the 8? 80,000	4. In the number 135,082,149, the digit 3 is in which place? Ten millions place What is the value of the 3? 30,000,000
5. In the number 135,082,149, the digit 4 is in which place? Tens place What is the value of the 4? 40	6. In the number 135,082,149, the digit 0 is in which place? Hundred thousands place What is the value of the 0? 0

Place Value

These are the digits that make up numbers in our number system.

0,1,2,3,4,5,6,7,8,9

When these digits create a number, each digit sits in a different place. Each **place** has a different **value**.

Example.

5	5	5	5	5	5	5	5	5	5
billions	hundred millions	ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones

We would read this number is five billion, five hundred fifty five million, five hundred fifty five thousand, five hundred fifty five.

Even though the number is made using only the digit 5, each digit has a different value.

*The five with the circle around it is in the millions **place**, and it has a **value** of 5 million.*

*The five with the line under it is in the hundreds **place**, and it has a **value** of 5 hundred.*

Place Value

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0,1,2,3,4,5,6,7,8,9

When these digits create a number, each digit sits in a different place. Each **place** has a different **value**.

Example.

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billions	hundred millions	ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones

We would read this number is five billion, five hundred fifty five million, five hundred fifty five thousand, five hundred fifty five.

Even though the number is made using only the digit 5, each digit has a different value.

*The five with the circle around it is in the millions **place**, and it has a **value** of 5 million.*

*The five with the line under it is in the hundreds **place**, and it has a **value** of 5 hundred.*

Extension Activities

1. Create 3 numbers that have 4 in the thousands place.
2. Create 3 numbers that have 7 in the ten thousands place.
3. Create 3 numbers that have 2 in the millions place.
4. Create the largest 6 digit number you can.
5. Create the smallest 6 digit number you can.
6. Create your own number cards/tasks.

Extension Activities

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2. Create 3 numbers that have 7 in the ten thousands place.
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6. Create your own number cards/tasks.

1	1	1	2	2	2	3
3	3	4	4	4	5	5
5	6	6	6	7	7	7
8	8	8	9	9	9	0
0	0	0	0	0	0	0



Place Value – Mini Card Blank Template

Quick Check Problems

1. In the number 135,082,149, the digit 5 is in which place?

What is the value of the 5?

2. In the number 135,082,149, the digit 9 is in which place?

What is the value of the 9?

3. In the number 135,082,149, the digit 8 is in which place?

What is the value of the 8?

4. In the number 135,082,149, the digit 3 is in which place?

What is the value of the 3?

5. In the number 135,082,149, the digit 4 is in which place?

What is the value of the 4?

6. In the number 135,082,149, the digit 0 is in which place?

What is the value of the 0?

Quick Check Problems - KEY

1. In the number 135,082,149, the digit 5 is in which place?

One millions place

What is the value of the 5?

5,000,000

2. In the number 135,082,149, the digit 9 is in which place?

Ones place

What is the value of the 9?

9

3. In the number 135,082,149, the digit 8 is in which place?

Ten thousands place

What is the value of the 8?

80,000

4. In the number 135,082,149, the digit 3 is in which place?

Ten millions place

What is the value of the 3?

30,000,000

5. In the number 135,082,149, the digit 4 is in which place?

Tens place

What is the value of the 4?

40

6. In the number 135,082,149, the digit 0 is in which place?

Hundred thousands place

What is the value of the 0?

0

THANK YOU!

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and check out more of my products in my TPT store.

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