



Total Time: 25 minutes
Instructional Time: 19 minutes
Independent Practice: 6 minutes

Module: Place Value
Lesson 10

Read and Write 6-Digit Numbers

Lesson Objectives	<ul style="list-style-type: none"> • The student will write and read whole numbers up to 999,999 in base-10 form, standard form, expanded form, and word form. • The student will verbally describe how and why numbers are moved to the next greater place. 	
Vocabulary	hundred thousands: the place-value position that is equal to one hundred thousand times the unit value	
Reviewed Vocabulary	digits, hundreds, ones, period, ten thousands, tens, thousands	
Instructional Materials	Teacher	Student
	<ul style="list-style-type: none"> • Teacher Masters (pp. 119-130) • Whiteboard with marker • Value Cards with marker • Number Word Bank sheet • <i>Make it 6!</i> cards • Sheet protector and marker 	<ul style="list-style-type: none"> • Student Booklet (pp. 60-65) • Whiteboard with marker (1 per student) • Value Cards with marker (1 set per student) • Number Word Bank sheet (1 per student)

Preview

Say: Today we will read and write 6-digit numbers.

Engage Prior/Informal Knowledge

Time: 3 min

Review the concept of 0s in a 5-digit number.

Distribute a whiteboard and marker to each student. Read the following numbers to students. Have students read and write the number, then write the expanded form of each number.

- Sixty thousand, three hundred four
- Ninety-nine thousand, fifty-one
- Thirteen thousand, eight hundred seventy-five
- Ten thousand, eleven

Ask question such as:

- What is the greatest place in the number? (*ten thousand or thousand*)
- How many digits are in this number? (*5 or 4*)
- How many digits do you hear in the number? (*answers will vary depending on the number*)
- What place do you not hear? (*answers will vary depending on the number*)
- What is the value of the ten thousands [thousands, hundreds, tens, or ones] place? (*answers will vary*)

Modeled Practice

Time: 8 min

1. Demonstrate working with the next greater place value, hundred thousand. Use the *Value Cards*.

Display 87,564 on the teacher's *Value Cards* in standard form.

Say: **What number?** (87,564)

If I add 5 groups of 10,000 to the ten thousands place, how many groups of 10,000 will I have? (13 groups of 10,000)

Erase the 8 in the thousands place on the ten thousands value card and write "13."

Say: **How many groups of 10,000 do I have?** (13)

Is this the correct way to show this number in standard form?
(no)

What is wrong with this standard form? (we cannot have more than 9 in any place)

What should we do when we have more than 9 in any place?
(trade 10 groups for 1 group of the next greater place).

Point to the 13 groups in the ten thousands place.

Say: **I need to take 10 groups of 10,000 and trade or regroup with 1 group of the next greater place.**

Pick up the 100,000 *Value Card*, show to students, and add to the back of the *Value Cards*. Circle the 10 groups of 10,000 on the ten thousands *Value Card*.

Say: **The next greater place after the ten thousands place is the *hundred thousands* place. What is the next greater place after the ten thousands place?** (the *hundred thousands* place)

The *hundred thousands* are part of the thousands period. What places make up, or are part of, the thousands period? (*hundred thousand, ten thousand, thousand*)

I trade or regroup 10 groups of 10,000 for 1 group of 100,000. What is 13 groups of 10 thousand minus 10 groups of ten thousand? (*3 ten thousand*)

Erase the 10 groups of 10,000 (leaving 3 groups of 10,000) and write “1” on the 100,000 value card. The value cards should show 137,564.

Say: **The new number is 137,564.**

What is the new number? (*137,564*)

Take the hundred thousands *Value Card* out to show students.

Say: **The *hundred thousands* place is equal to 100,000 ones or 10 groups of 10,000.**

How many groups of 1,000 would be equal to 10,000? (*you may need to remind students that 10,000 is equal to 10 groups of 1,000, so 100,000 would be equal to 100 groups of 1,000*)

2. Demonstrate periods in the place-value chart.

Using *Modeled Practice Sheet #1*, point to the units period in the place-value chart. Teacher and students complete the steps as the lesson progresses.

Say: **Working with numbers into the thousands, we learned that a period is a group of 3 digits in a number. What places are in the units period?** (*ones place, tens place, and hundreds place*)

What are the digits in the units period? (*695*)

Point to the thousands period on the place-value chart.

Say: **The thousands period contains the thousands, ten thousands, and *hundred thousands* places.**

What digits are in the thousands period? (*271*)

How many total digits are in this number? (*6*)

3. Demonstrate writing a 6-digit number in expanded form. Distribute the *Value Cards* to the students.

Say: Writing a 6-digit number in expanded form requires the same steps as a 5-digit number except there is an added value for the *hundred thousands* place.

Show the hundred thousands *Value Card*.

Say: The 2 in the *hundred thousands* place represents 200,000. Write “200,000” on the *hundred thousand Value Card*.

What is the value of the ten thousands place? (70,000) Write it on the ten thousand Value Card.

What is the value of the thousands place? (1,000) Write it.

Write the units period in expanded form using the Value Cards.

Allow 7-10 seconds for students to finish filling in the *Value Cards*.

Say: What are the values for the hundreds, tens, and ones value cards? (600, 90, and 5)

What is the expanded form of this number? (200,000 + 70,000 + 1,000 + 600 + 90 + 5)

Point to the standard form line on *Modeled Practice Display #1*.

Say: Write the number in standard form. Overlay your Value Cards so the first digit on each card is showing.

Cover the units period with your hand on the place-value chart.

Say: What 3-digit number do we have in the thousands period? (271) Write it.

What 3-digit number do we have in the units period? (695) Write it.

What do we write between the periods to help us read the number? (comma) Write it.

To read a 6-digit number, we look at the number to the left of the comma first.

Slide your finger under 271 in the thousands period.

Say: **What number is to the left of the comma in the thousands period?** (271)

What does the comma remind us to say? (*thousand*)

Slide your hand to cover the thousands period.

Say: **What number is to the right of the comma?** (695)

What is the number altogether? (*two hundred seventy-one thousand, six hundred ninety-five*) **Write “271,695” on the standard form line.**

4. Demonstrate writing a 6-digit number in word form.

Point to the word form line on *Modeled Practice Display #1*. Distribute a *Number Word Bank* to each student.

Say: **Writing a 6-digit number in word form requires the same steps as a 5-digit number, except there is one additional place. It is helpful to think of the 2 periods in the number when writing the word form.**

Cover the units period with your hand.

Say: **What number is in the thousands period?** (271) **Write “two hundred seventy-one thousand” on the word form line.**

Why do you write “thousand”? (*because it is in the thousands period*)

Allow 7-10 seconds for students to write the word form on the line.

Slide your hand to cover the thousands period.

Say: **What number is in the units period?** (695)

Write “six hundred ninety-five” on the word form line. What goes in between the two periods to help us read the number? (*comma*) **Write it.**

Allow 7-10 seconds for students to write the word form on the line.

Say: **Read the word form.** (*two hundred seventy-one thousand, six hundred ninety-five*)

Watch For



Students may have difficulty writing the word form of a 6-digit number, such as with spelling or writing the correct places.
For example, for 538,264, students may write “fifty-three eight thousand, two hundred sixty-four” instead of “five hundred thirty-eight thousand, two hundred sixty-four.”
Reinforce for students the proper writing of numerals by:
 •having students find the number words in the Number Word Bank to help with spelling.
 •having students break the number into periods, reading the 3-digit number in that period and then writing it in words.

5. Demonstrate writing the standard form of a number in word form.

Using *Modeled Practice Sheet #2*, point to seven hundred fifty thousand, four hundred sixteen. Teacher and students complete the steps as the lesson progresses.

Say: **Read the number in word form. Ready? Read: “seven hundred fifty thousand, four hundred sixteen.” We will write the standard form for this number.**

Point to seven hundred fifty thousand.

Say: **When you read or write the word form of a 6-digit number, you begin with the number in the thousands period. What is the number in the thousands period?** (*seven hundred fifty thousand*)

How do you show the value of seven hundred fifty thousand in standard form? (*7 in the hundred thousands place, 5 in the ten thousands place, and 0 in the thousands place with a comma*)
Write “750” on the blank before the comma.

Why is there a 0 in the thousands place? (*because there are 0 groups of 1,000*)

Point to four hundred sixteen.

Say: **What numbers are in the units period?** (*four hundred sixteen*)

How do I show the value of four hundred sixteen in standard form? (*4 in the hundreds place, 1 in the tens place, and 6 ones*)

Write “416” on the blank after the comma.

What is the standard form of the number? (*750,416*)

Watch For



Students may have difficulty writing the standard form of a 6-digit number from word form.

For example, students may write “six hundred twenty-four thousand, three hundred fifty-six” as “60024,30056.”

Have the students first identify the number of digits in the number. Then have students draw a line for each digit. Have students identify each place and its value while writing the number in standard form.

Practice

Time: 8 min

Activity 1: Students will practice writing 6-digit numbers in standard form, expanded form, and word form.

Have students turn to the *Practice Sheets on pages 62 and 63*. Have *Value Cards* and the *Number Word Bank* available for student use during practice.

For item #1, dictate “435,681” and “760,280” for students to write.

Work with students on the rest of the items, gradually fading teacher assistance. Complete both pages.

Activity 2: Students will practice concepts while playing *Make It 6!* as a group. Use the *Make It 6!* cards, *Place-Value Chart* (in a sheet protector with a marker) and *Value Cards*.

Place the 2 stacks of number cards facedown and the *Place-Value Chart* (in a sheet protector with a marker) on the table. Have one student pick 3 orange numbers cards and write the digits for the thousands period. Have another student pick 3 blue number cards and write the digits for the ones period. Have a student build the expanded form with *Value Cards* and another student build the standard form with *Value Cards*. Have another student read the expanded form and standard form. Repeat 1-2 times.

During the game, ask such questions as:

- What is another name for the groups of 100,000, groups of 10,000, groups of 1,000, groups of 100, group of 10, or ones? (*look for such answers as 4 hundreds or 400*)
- How do you know to write “___” in the hundred thousands place, ten thousands place, thousands place, hundreds place, tens place, or ones place? (*look for answers relating the value to the place*)
- If I added another group of 10,000 to that number, what would change? (*look for answers about whether the number moves to the next greater place or not*)

Independent Practice

Time: 6 min

1. For 5 minutes: Have students turn to the *Independent Practice Sheets* and complete as many items as possible.

Say: **You will work independently for 5 minutes. Complete as many items as you can. At the end of 5 minutes, we will discuss our answers as a group. The first number is 639,482. Write the number in standard form and in the Value Card blanks.**

2. For the remaining time: Have students share their answers with the group. Provide corrective feedback using mathematical language from the lesson. Have students mark the total number correct at the top of the page.