MA.1.NSO.1.2

Overarching Standard: *MA.1.NSO.1 Extend counting sequences and understand the place value of two-digit numbers.*

Benchmark of Focus

MA.1.NSO.1.2: Read numbers from 0 to 100 written in standard form, expanded form and word form. Write numbers from 0 to 100 using standard form and expanded form.

Examples The number seventy-five written in standard form is 75 and in expanded form is 70 + 5.

Related Benchmark/Horizontal Alignment
- MA.1.NSO.2.4

Vertical Alignment

Previous Benchmarks	Next Benchmarks
MA.K.NSO.1.2	MA.2.NSO.1.1
MA.K.NSO.2.1	MA.2.NSO.1.2

Terms from the K-12 Glossary
- Expression

Purpose and Instructional Strategies
The purpose of this benchmark is for students to understand that the value of a digit is impacted by its position in a number. A three in the tens place has a value of 30 while a 3 in the ones place has a value of 3. In Kindergarten, students learned to recognize and count numbers to 100 verbally. Students counted out objects within 20 when given that number verbally or by its written numeral. *(MTR.5.1)*
- Instruction includes the understanding that in expanded form each digit of a multi-digit number is assigned a value based on its place.

- Instruction includes experiences with numbers written in different forms. *(MTR.2.1 Demonstrate understanding of representing problems in multiple ways)*

- Instruction includes the use of both proportional and non-proportional models like base ten models or place value disks. *(MTR.5.1)*

Common Misconceptions or Errors
- Students may confuse the value of the digits with how they are stated as a number.
  - For example, the standard form of fifteen is 15 and not 51.
- Students may write sequences of numbers rather than expanded form like 83 as 8 + 3 instead of 80 + 3. Having students use base ten blocks to model the number could be helpful for students to understand that the value is directly correlated to tens and ones.

Strategies to Support Tiered Instruction
- Instruction includes opportunities to use a place value chart and base ten blocks to represent a two-digit number like 76. Students write the expanded form below the base ten blocks on the place value chart, reading the expanded form aloud. This will assist in the word form of the numbers. Students write out the word form below the expanded form, referring to a math word wall where number names may be listed as needed.
  - For example, to confirm that students understand the value of the digits ask, "How is the number 67 the same or different than 76?"

	Tens	Ones
	‖‖‖‖‖‖‖	◼ ◼ ◼ ◼ ◼ ◼
Expanded Form:	70 ➕	6
Word Form:	Seventy-	six

- Teacher provides the opportunity to use a place value chart and connecting cubes or break-apart base ten blocks. Have students represent a two-digit number, like 36. Then, have the students represent this model with a drawing on the place value chart.
  - For example, ask students to use the same blocks and create the representation of 63 (students should not be able to do so with only 3 tens and 6 ones). Discuss why they cannot create this number with blocks they have. Then, provide them more blocks and have them create the representation of 63. Ask them to compare the two different numbers. What do they notice and wonder? Have students identify or match the expanded forms and word forms of the numbers used.

Tens	Ones
||||||	▪ ▪ ▪
Word Form: Sixty-three	
Expanded Form: 60 + 3	

Questions to ask students:

- How many tens and ones are in the given number?
  - Sample answer: How many tens and ones are in 15? 1 group of tens and 5 ones.
- How can we write __ tens and __ ones in word form? standard form?
  - How can we write 1 ten and 5 ones in word form? standard form?
    - fifteen; 15
- How can we write (number written in word form) standard form? expanded form?
- How can we write this number using digits?
- How do we write this number using words?
- What is expanded form?
  - A way that we can write a number while telling the value of each digit. We create an algebraic expression.
- What is standard form?
  - A way we can write a number using digits.
- What is word form?
  - A way to write a number using words.

Instructional Tasks

Instructional Task 1 (MTR.2.1, MTR.4.1)

Provide students with the graphic organizer shown below.

Part A. Using tens and ones base ten blocks, create a two-digit number and record in the first column. Write an addition expression in the second column that corresponds to the representation in the first. In the last column, write your number. Repeat until you have created four numbers and written four addition expressions.

Draw your number	Expression	Number
Here students will draw a pictorial representation of their base ten blocks using rods and dots. |||||| ….	Here students will write their number in expanded form using an expression to show how many tens and ones are in their number. **70 + 4**	Here students will write their number in standard form. **74**

Part B. With a partner, review your work and explain how you know your expressions are correct.

Instructional Items

Instructional Item 1

How are 16 and 61 alike and different?

Instructional Item 2

Kourtney wrote a number in expanded form: 90 + 4. What is the standard form of her number?

Instructional Item 3

Using the word form of a number, complete the table below with the missing standard form or expanded form.

Word Form	Standard Form	Expanded Form
thirteen	13	
fifty-one		50 + 1
forty-five		40 + 5
twenty-nine	29	

Additional Resources:

[Expanded form Lesson](#)

[Number Folds and Place Value Stacks](#) Activity

[Place Value – Roll It, Draw It, Expand It!](#) (TPT Activity)

[Numbers to 1000](#) (Grades K-2 Nearpod Lesson)

[Math Skill Practice](#) (IXL)

Sheriff Jacob: Expanded Form by Kathleen L. Stone (Read Aloud)

[Place Value Activities for Kids](#) (BrainPop Educators)

[30 Smart Place Value Activities](#) (Blog Post)

Resources/Tasks to Support Your Child at Home:

Number Form Sort: On cups, sticky notes, or index cards, write a variety of numbers in word form (twelve), standard form (12), and expanded form (10 + 2). Have your child sort the cards how they see fit. They may group all the different forms to write the number together. If they do, explain that they've just sorted the cards by a way we could represent the numbers. Then tell your child to try to match each form that belongs together.

[Number Forms](#) (YouTube)

Number Hunt: Take a walk with your child around the neighborhood. Look for one-, two-, three-digit numbers and have your child read them out loud. You may want your child to record the numbers that they find. Discuss each number and ask how many ones, tens, or hundreds are in the number. Also, have your child tell you or record the different number forms (word and expanded) of the numbers found.