# MA.K.NSO.2.3

**Overarching Standard:** ***MA.K.NSO.2*** *Recite number names sequentially within 100 and develop an understanding for place value.*

**Benchmark of Focus**

MA.K.NSO.2.3: Locate, order and compare numbers from 0 to 20 using the number line and terms less than, equal to or greater than.

**Benchmark Clarifications**

*Clarification 1:* Within this benchmark, the expectation is not to use the relational symbols =, > or <.

*Clarification 2:* When comparing numbers from 0 to 20, both numbers are plotted on the same number line.

*Clarification 3:* When locating numbers on the number line, the expectation includes filling in a missing number by counting from left to right on the number line.

---

**Related Benchmark/Horizontal Alignment**

- MA.K.NSO.1.3/1.4
- MA.K.NSO.3.1/3.2
- MA.K.AR.1.1
- MA.K.AR.2.1
- MA.K.M.1.2

---

**Terms from the K-12 Glossary**

- Equal Sign
- Number Line

---

**Vertical Alignment**

| Previous Benchmarks | Next Benchmarks |
|---|---|
| VPK | MA.1.NSO.1.4 |

---

**Purpose and Instructional Strategies**

The purpose of this benchmark is to build on knowledge from comparing in MA.K.NSO.1.4 and to introduce the number line. This benchmark will deepen student understanding of the relationship between numbers, as well as provide the foundation for the number line as a strategy for operations later on.

- Instruction includes varied orientations and ranges of the number line.
    - For example, given number lines can be horizontal, vertical, starting at 0, starting at another number, include blanks or an open number line. *(MTR.5.1)*

- Instruction includes making a connection to measurement when comparing numbers on a number line, which will help prepare students for using rulers in later grades.

---

**Common Misconceptions or Errors**

- Students may assume that all number lines start at 0 or 1.
- When looking at number lines with hash marks, students may number the spaces between the hash marks instead of the hash marks.

---

**Strategies to Support Tiered Instruction**

- Instruction includes building a number line using number cards. Students will benefit from experiences in which large number cards are used and placed on the floor so that students construct relationships about numbers and how far away or close they are to other numbers.
- Instruction focuses on building language for thinking about numbers and describing the location on the number line.
    - For example, questions or statements that can be shared to elicit student thinking about numbers and their positions are:
        - *"Can you find the number 12?"*
        - *"Where is 10? How far away is it to 12? How do you know?"*
        - *"Is 11 greater than, or less than 13? How do you know?"*
        - *"Here is the number 12. It comes before 13 and after 11."*
        - *"Ten is two away from 12."*
        - *"Eleven is less than 13 because it is two less than 13."*
- Instruction includes building a number line to identify the value of hash marks.
    - For example, using large number cards for the space and string/tape or marker to represent the hash mark/value on the number line.
        - Start at zero, place the number one next to the zero hash mark and then draw or identify the end of the card as the mark to represent one. Remove the large number card and replace with an arc/hop to show the jump from zero to one. Repeat this for each number up to 20.
        - Scaffolds for building a number line can include providing the student with numbered strips to reference or using number cards to locate and match numbers on a number line.

---

**Questions to ask students:**

Is there a greater number of red or blue counters? How do you know?

- Sample response that indicates understanding: *There is a greater number of red counters because 12 red counters is greater than 9 blue counters.*

Are there fewer red or blue counters? How do you know?

- Sample response that indicates understanding: *There are fewer blue counters because 9 is fewer than 12.*

Order the number of counters from least to greatest on the number line.

- Sample response that indicates understanding: *Placing 9, 12 and then 15 in order on the number line. "15 is the greatest, 9 is the least"*

---

**Instructional Tasks**

*Instructional Task 1*

In a small group, provide students with number lines and objects to count, like paperclips or bears. Ask students to represent two numbers, such as 7 and 9, using objects organized over the number line. Ask students which number is greater? How do they know? Allow students to share strategies and thinking with the group. Students should begin to understand that if there is more of one object, the count will extend further to the right.

*Instructional Task* 2

Provide students a number line to answer the questions below.

Part A. What's the third number following 6?

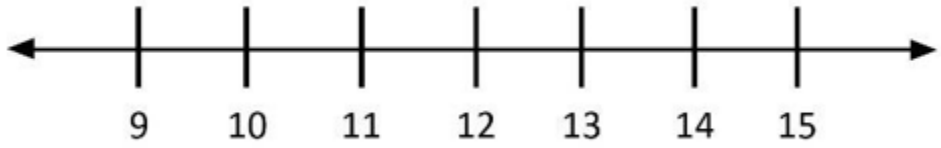
Part B. What's the fifth number before 14?

---

**Instructional Items**

*Instructional Item 1*

Find one more than 12 and one less than 12 on the number line. Show how you know.

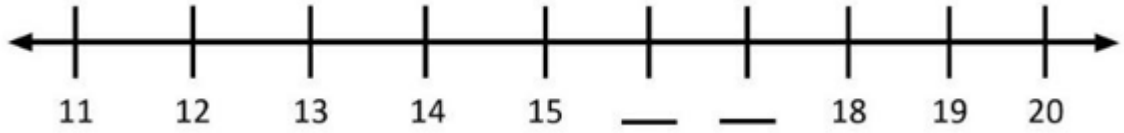



*Instructional Item 2*

Use a number line to show your thinking. Is 19 more than 17? Why or why not?

*Instructional Item 3*

What numbers are missing from the number line?




---

**Additional Resources:**

CPALMS Resource: MA.K.NSO.2.3

Khan Academy: Compare Numbers of Objects to 20

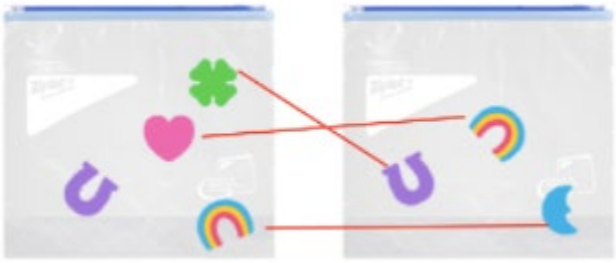
Video: Comparing and Arranging Numbers to 20

Video: Ordering Numbers to 20 (number line)

---

**Resources/Tasks to Support Your Child at Home**:

Have a bag of cereal with no more than twenty pieces in it. Have your student reach into the bag and pull out two handfuls. They will use the matching strategy to compare the number of cereal pieces in each hand.



> **NOTE**: Students should match up the number of objects, not the objects themselves. For example, a rainbow was matched with a moon. The bag on the left had an extra object, therefore it was greater.

After students have compared different objects, ask them to determine each type of marshmallow. Then have them record the number of each marshmallow on a number line to put the number of each in order of least to greatest.