

MA.2.M.1.2

Overarching Standard: *MA.2.M.1 Measure the length of objects and solve problems involving length.*

Benchmark of Focus

MA.2.M.1.2: Measure the lengths of two objects using the same unit and determine the difference between their measurements.

Benchmark Clarifications

Clarification 1: Within this benchmark, the expectation is to measure objects to the nearest inch, foot, yard, centimeter or meter.

Related Benchmark/Horizontal Alignment

MA.2.NSO.2.3

MA.2.AR.1.1

Vertical Alignment

Previous Benchmarks

MA.1.M.1.2

Next Benchmarks

MA.3.M.1.2

Purpose and Instructional Strategies

The purpose of this benchmark is to directly compare the length of two objects measured using the same unit and determine the difference.

- Instruction includes selecting the appropriate tool to measure.
- Instruction includes helping a student choose a method they can use reliably to determine the difference.
- Instruction includes helping students record the appropriate measurement when the object falls between two whole number measurements.

Common Misconceptions or Errors

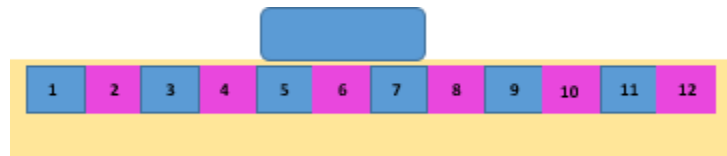
- Students may misalign the ruler with the object and measure an object from 1 instead of 0.
- Students may count all tick marks, not just the whole-unit marks, when reading a ruler.
- Students may leave gaps when measuring objects.

Strategies to Support Tiered Instruction

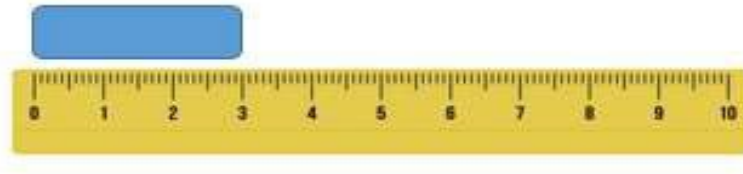
- Instruction includes providing opportunities to make and use rulers to construct understanding of how lengths of each unit align to tick marks and numbers on a ruler.
 - For example, students make and use their own ruler in three phases.
Phase 1: Using paper square tiles glued to a strip of cardstock, students count the units that span an object to measure.



Phase 2: Labeling each square tile with a number in the center of the unit, students use numbers to count the units of measure.



Phase 3: Eliminating the square tiles, students draw tick marks at the end of each unit and label with a number below, the starting at zero. Students reference the numbers to count the units.



Questions to ask students:

- **Ask: How do you know that object is ____inches/cm longer than the _____?**
 - Sample answer that would indicate understanding: I know this object is ____longer than the ____, because I lined them up and measured the difference. OR I know this object is ____longer than the ____, because I measured them both and then subtracted the two measurements.
 - Sample answer that indicates an incomplete understanding or a misconception: The pencil is longer than the crayon; however, the student is not able to explain how much longer.
 - Sample answer that indicates an incomplete understanding or a misconception: The pencil is 8 inches longer than the crayon. The student places the objects next to each other but does not line them up when finding the difference in measurement.
- **Ask: How many inches long is this pencil? How do you know?**
 - Sample answer that would indicate understanding: The student will line up the "0" with the end of the pencil and record the closest inch.
 - Sample answer that indicates an incomplete understanding or a misconception: The student does not line up the pencil with the "0"; thereby recording an incorrect measurement. OR The student might use the cm side of the ruler rather than the inches side.

Instructional Tasks

Instructional Task 1

Provide students with an object of a given measurement in various units.

Part A. Find objects in the classroom or that are shorter or longer than the given object and find the difference using the common unit.

Part B. Discuss which tool was more appropriate to use and what strategy was used to find the difference.

Instructional Items

Instructional Item 1

A pair of scissors measure 22 centimeters long, and a glue stick measures 14 centimeters long. Which statement below is true about the measurement of the objects?

- a. The glue stick is 9 cm. longer than the scissors.
 - b. The glue stick and scissors are 8 cm. long.
 - c. The scissors are 8 cm. longer than the glue stick.
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Additional Resources:

[CPALMS Resources](#)

Video:

https://learnzillion.com/lesson_plans/6984-find-the-difference-in-the-length-of-two-objects-using-addition/

Resources/Tasks to Support Your Child at Home:

- Have your child choose objects from home to measure the length of using a ruler. Have them describe how the lengths compare using the language: shorter and longer. Have them record the lengths and find the difference in length of the two objects by subtracting.
- Khan Academy Tutorial Video: [Length Word Problems](#)
- Khan Academy Practice: [Length Word Problems](#)