

MA.1.M.1.2

Overarching Standard: MA.1.M.1 *Compare and measure the length of objects.*

Benchmark of Focus

MA.1. M.1.2: Compare and order the length of up to three objects using direct and indirect comparison.

Benchmark Clarifications

Clarification 1: When directly comparing objects, the objects can be placed side by side or they can be separately measured in the same units and the measurements can be compared.

Clarification 2: Two objects can be compared indirectly by directly comparing them to a third object.

Related Benchmark/Horizontal Alignment

- MA.1.NSO.1.4

Vertical Alignment

Previous Benchmarks	Next Benchmarks
MA.K.M.1.2	MA.2.M.1.2
	MA.2.M.1.3

Purpose and Instructional Strategies

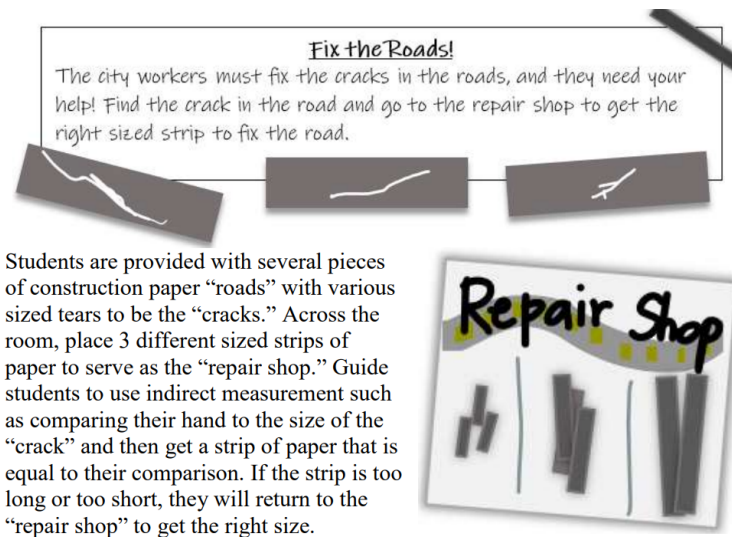
The purpose of this benchmark is to have students explore transitivity. Transitivity is a relation between three elements. For example, if object A is longer than object B and object B is longer than object C, then object A must be longer than C as well. In Kindergarten, students directly compared two objects with a common attribute. When directly comparing the length of the two objects, students use terms such as shorter, longer, taller and higher to describe the objects. (MTR.1.1, MTR.5.1)

Common Misconceptions or Errors

- Some students may try to use a ruler to measure a length when reasoning alone would be sufficient to make an indirect comparison. In these cases, remind students that they can use reasoning rather than an actual measurement.
 - Students may mix units when measuring objects (where one item is measured in inches and another is measured in centimeters).
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Strategies to Support Tiered Instruction

- Instruction provides opportunities to reason using direct and indirect comparison. Tasks are presented as real world, inquiry-based, and involve situations in which a standard measurement tool is not provided to be able to solve the problem.
 - For example, the teacher presents a task such as:



- Teacher provides instruction to discuss key differences between centimeters and inches and write or draw about those differences to use as a reference during instruction.
 - For example, a t-chart can be used to organize comparisons about inches and centimeters. Students can use sticky notes to draw pictures, write words or sentences about inches and centimeters.

Standard Units to Measure Length	
inch	centimeter

Questions to ask students:

- **What are 2 objects that are longer than your pencil?**
 - Sample answer that indicates understanding: Student correctly gives 2 objects that measure longer than the pencil.
- **What is a classroom object that is shorter than your pencil but longer than a paperclip?**
 - Sample answer that indicates understanding: Student correctly identifies a classroom object such as a crayon.

Instructional Tasks

Instructional Task 1 (MTR.4.1)

Adeline, Eli and Sarai are comparing their pieces of yarn. Adeline says her piece of yarn is the same length as Sarai's piece of yarn. Eli says his piece of yarn is longer than Sarai's piece of yarn. Draw what Adeline, Eli and Sarai's yarn pieces could look like. Make sure to label each child's yarn. With a partner, discuss how your drawings are similar and different. Do you or your partner need to make changes to your work?

Instructional Task 2 (MTR.6.1)

Around your classroom look for an object that could fit in the box below. Then complete the task by following the directions below.

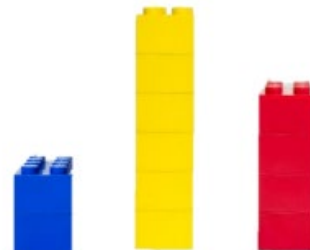
1. My object is a _____. Record the length of your object below.
2. An object that is shorter than my first object is a _____. Record the length of the object that is shorter than your first object below.
3. An object that is longer than my first object is a _____. Record the length of the object that is longer than your first object below.
4. Complete the statement below using the name of your objects. _____ is shorter than _____. _____ is the longest object I found.

Instructional Items

Instructional Item 1

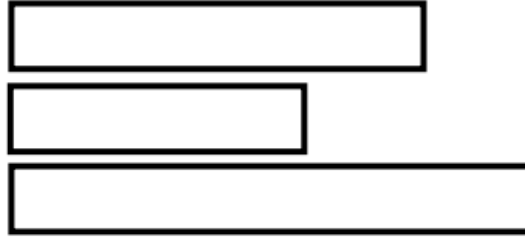
Jamal needs to write a true statement about his towers shown here. Which statement below is true?

- a. The red tower is the tallest tower.
- b. The yellow tower is the shortest tower.
- c. The blue tower is taller than the red tower.
- d. The red tower is shorter than the yellow tower.



Instructional Item 2

Look at the rectangles below. Color the longest rectangle blue. Color the shortest rectangle red. Write two sentences to describe your rectangles.



Instructional Item 3

Look at the cube train below.



Part A. Use a blue crayon to draw something longer than the cube train.

Part B. Use a red crayon to draw something shorter than the cube train.

Part C. Use a yellow crayon to draw something that is equal in length to the cube train.

Part D. Write a true statement about the blue and red drawings.

Additional Resources:

[CPALMS Resources](#)

Video: Kahn Academy: [Order by Length](#)

Resources/Tasks to Support Your Child at Home:

Choose 3 different objects in your home to compare the length of. Have your child describe which object is longer or shorter. Put the objects in order from shortest to longest. Continue with 3 other objects. (Continue this same process with height using the language, *tallest* and *shortest*).

Have your child measure the length of the objects using non-standard units such as cubes or paper clips. Encourage them to be precise with their measurement by not having any gaps or overlaps with the units chosen.