

MA.K.M.1.2

Overarching Standard: MA.K.M.1 *Identify and compare measurable attributes of objects.*

Benchmark of Focus

MA.K.M.1.2: Directly compare two objects that have an attribute which can be measured in common. Express the comparison using language to describe the difference.

Benchmark Clarifications

Clarification 1: To directly compare length, objects are placed next to each other with one end of each object lined up to determine which one is longer.

Clarification 2: Language to compare length includes short, shorter, long, longer, tall, taller, high, or higher. Language to compare volume includes has more, has less, holds more, holds less, more full, less full, full, empty, takes up more space or takes up less space. Language to compare weight includes heavy, heavier, light, lighter, weighs more or weighs less.

Related Benchmark/Horizontal Alignment

- MA.K.NSO.1.1/1.4
- MA.K.NSO.2.3
- MA.K.GR.1.2/1.3

Vertical Alignment

Previous Benchmarks VPK	Next Benchmarks MA.1.M.1.2
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Purpose and Instructional Strategies

The purpose of this benchmark is to continue to develop an understanding for attributes that can be measured, described, and compared, not numerical measurement.

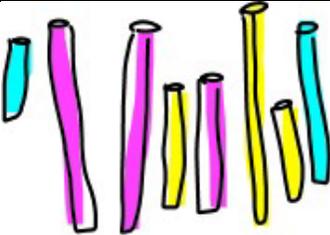
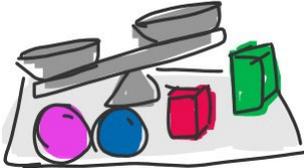
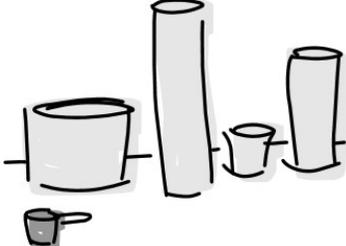
- Instruction includes comparing attributes such as length (including height), weight and capacity.
 - There is no expectation of comparing numerical measurement, but to directly compare objects with one another. *(MTR.5.1)*
 - For example, the ladder is taller than the man.
 - Instruction includes the development of vocabulary terms and phrases that can be used to describe and compare measurable attributes. *(MTR.4.1)*
 - Instruction includes concrete objects as well as images and context to describe measurable attributes. *(MTR.7.1)*
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Common Misconceptions or Errors

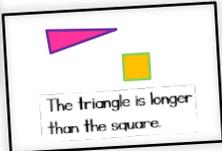
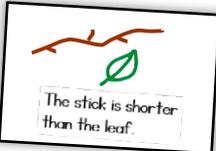
- Students may incorrectly apply terms for comparing the attributes of objects.
- Students may assume that a larger object is also a heavier object.
- Students may assume that a taller container can hold more liquid.
- Students may confuse position with measurement, especially when dealing with height.

Strategies to Support Tiered Instruction

- Teacher provides repeated, hands-on experiences that challenge assumptions about length, volume, and weight. Instruction includes an emphasis on building essential language as it relates to the specific measurement tasks being performed with tasks that emphasize comparison.
 - Example:

Length	Weight	Volume
How can we put the straws in order from tallest to shortest? Are there any straws that are the same length?	Which object do you think is the lightest? Do any objects weigh the same?	Which container will hold the most sand? Will any containers hold an equal amount of sand?
<ul style="list-style-type: none"> • 3 or more similarly shaped objects, but of different lengths • determine the end points to emphasize accuracy 	<ul style="list-style-type: none"> • objects that are similar in size and shape, but of different weights • use a balance scale to compare 	<ul style="list-style-type: none"> • containers of the same shape, but of different heights and widths • include containers that hold equal amounts • when using sand or liquid, the unit of measure can be a scoop or smaller container
		

- Instruction includes sorting pictures that include statements about attributes into categories of “true or false.” Teachers read the statements to students if needed.
 - Example:

	true	false
 <p>The bucket holds more than the cup.</p>	 <p>The triangle is longer than the square.</p>	 <p>The stick is shorter than the leaf.</p>

Questions to ask students:

Is your object taller or shorter than this glue stick? How do you know it's shorter/taller?

- Sample answer that indicates understanding: *"The object is shorter than the glue stick"*

What objects can you find that are shorter/longer/heavier/lighter than the pencil?

- Sample answer that indicates understanding: *"The glue bottle is heavier than the pencil"*

If an object is taller, is it always heavier?

- Sample answer that indicates understanding: *"The object is not always heavier if it is taller. This straw is taller than the glue stick, but the glue stick is heavier."*

How could you describe these towers to me?

- Sample answer that indicates understanding: *"The red tower is shorter than the blue tower."*

How could you organize the objects to determine which is longest?

- Sample answer that indicates understanding: *"I could put them in order of shortest to longest. The one at the end is the longest object."*

Instructional Tasks

Instructional Task 1

Working in groups students are provided with an assortment of objects to compare (varied in height, length, weight, and capacities). Students will choose various objects from what is available to compare based on height, length, capacity, or volume, and decide which attribute they will compare. Give students time to discuss and record their findings.

Length and Height	_____ is shorter/taller/higher than _____.
	_____ is shorter/taller/higher than _____.
	_____ is shorter/taller/higher than _____.
Weight	_____ is heavier/lighter than _____.
	_____ is heavier/lighter than _____.
	_____ is heavier/lighter than _____.
Capacity	_____ holds more/less than _____.
	_____ holds more/less than _____.
	_____ holds more/less than _____.

Instructional Items

Instructional Item 1



Additional Resources:

CPALMS: [MA.K.M.1.2](#)

Online Video: [Comparing Volume](#)

Resources/Tasks to Support Your Child at Home:

Have your child trace their foot with chalk on the sidewalk. Then trace a friend's foot. Have the child compare: Which foot is longer? Which foot is shorter?

Have your child compare their height with your height. Who is taller? Who is shorter?

Have your child compare the weight of two objects. Which is heavier? Which is lighter?

Find household items of different weights to have your child compare the weights using the language heavier or lighter.

Use different sized containers, including different heights and widths. Pour water into the containers, tracking how much it takes to determine which containers hold more and which containers hold less.

Online Game: [Which is heavier/lighter?](#)

IXL Online Game: [Holds More or Less](#), [Light and Heavy](#), [Long and Short](#), [Tall and Short](#)