MA.K.M.1.1

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

Benchmark of Focus

MA.K.M.1.1: Identify the attributes of a single object that can be measured such as length, volume, or weight.

Benchmark Clarifications

Clarification 1: Within this benchmark, measuring is not required.

Related Benchmark/Horizontal Alignment
- MA.K.GR.1.1/1.2/1.3/1.4
- MA.K.DP.1.1

Vertical Alignment

Previous Benchmarks	Next Benchmarks
VPK	MA.1.M.1.1

Purpose and Instructional Strategies

The purpose of this benchmark is to develop an understanding for measurement and attributes that can be measured, without focusing on the value of the measurement. Through this benchmark students begin to develop related vocabulary they will also apply in later benchmarks and grade levels.
- Instruction includes students describing measurable attributes and using vocabulary suchas tall, short, long, heavy and light. *(MTR.4.1)*
- Instruction includes the introduction of terms to compare measurable attributes, such aslonger, shorter, heavier, and lighter.
- Instruction includes concrete objects as well as images and context to describe measurable attributes. *(MTR.7.1)*
- The expectation of this benchmark is not to focus on numerical values of measurement byestimating or measuring, but to develop understanding of attributes that can be measured, and vocabulary used to describe those attributes.

Common Misconceptions or Errors
- Students may confuse volume with weight, or length with volume.
- Students may assume that there is only one way to describe attributes.

- o For example, one student may conclude that an object is short, heavy, or long, while another may conclude the opposite. The students may assume that one of them must be correct.

Strategies to Support Tiered Instruction
- Instruction includes opportunities to use the same object to explore multiple attributes during different lessons, actively participating in experiences that include inquiries in which length, volume, and weight must be considered. Students are encouraged to verbalize their thinking while a teacher scaffolds with use of math vocabulary *during* the activity. Teachers guide student discussions and models think-aloud about each attribute by connecting student-centered language with key mathematical vocabulary. Record the results of measurement investigations by drawing, labeling, and verbally communicating to peers or teacher about their results.
  - o For example, how many ways can we measure a bucket?

	Inquiry	Language Supports	Possible Student Responses
length	How many cubes tall is the bucket?	*"We measure the length when we are trying to find out how tall something is."*	7 cubes tall
volume	How many tennis balls will the bucket hold?	*"How much something holds is called volume."* *"When we are trying to find out how many can fit inside, we are finding out the volume."*	The bucket holds 27 balls
weight	Which weighs more? A bucket filled with tennis balls or ping pong balls?	*"When we weigh something, we are trying to find out how heavy or light it is."*	
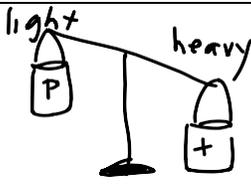
Questions to ask students:
How would you describe this object's length?
- Sample answer that indicates understanding: *"The object is short/long etc"*

How would you describe this object's height?
- Sample answer that indicates understanding: *"The object is short/tall etc"*

How would you describe this object's weight?
- Sample answer that indicates understanding: *"The object is light/heavy etc"*

Instructional Tasks

Instructional Task 1

Provide students with various objects (or cards with pictures of objects) of different sizes (lengths, heights, and weights). In small groups as students to sort the objects by different attributes; such as shortest to longest or lightest to heaviest. Facilitate conversations with the group focusing on developing student's vocabulary and development of corresponding concepts. Compare different ways of sorting the objects (for example, the longest may not bethe heaviest, etc.).

Instructional Items
Instructional Item 1

Connect each object to (a) word(s) that could be used to describe it.

Short
Tall
Long
Short
Light
Heavy

Additional Resources:

CPALMS: MA.K.M.1.1

YouTube Video: Kindergarten Measurement

Resources/Tasks to Support Your Child at Home:

Give your child a set of random objects. Have your child sort the objects based on common attributes using the language: short, tall, long, light, and heavy.

Have your child choose two objects compare the two lengths/weights.

Online Game: Tall and Short