

Unit 11: Measurement

Content Area: **Mathematics**
Course(s): **Math K**
Time Period: **December**
Length: **2 weeks**
Status: **Published**

Unit Summary

In this unit, students will learn that objects have measurable attributes, such as length and weight, that can be compared and described.

Standards

MA.K-12.2	Reason abstractly and quantitatively. Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.
MA.K.MD.A	Describe and compare measurable attributes.
MA.K.MD.A.1	Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
MA.K.MD.A.2	Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP2.1	Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation.
TECH.8.1.2.A.CS1	Understand and use technology systems.
TECH.8.1.2.A.CS2	Select and use applications effectively and productively.

Student Learning Objectives

Students will learn to...

- directly compare the lengths of two objects.
- directly compare the heights of two objects.
- directly compare the weights of two objects.
- describe several measurable attributes of a single object.
- solve problems by using the strategy draw a picture.

Essential Questions

- How can you compare objects?

Enduring Understandings

Students will understand that...

- an object's size can be described using words and numbers.
- measuring identifies how long things are, how tall things are, and how much they weigh.

Application

Students will be able to independently use their learning to...

- make comparisons between objects that explicitly display the attribute of length and use terms such as same as, shorter than, and longer than.
- understand that like length, height is the measurement of distance between two points.
- use words like taller, shorter, higher, and lower when comparing heights
- identify that some objects can have more than one measurable attribute.
- describe weight as the measurement of the pull of gravity on an object.
- comparing weights, using terms such as heavier, lighter, or the same.
- order objects according to weight.

Skills

Students will be skilled at...

- comparing objects by length, height, and weight.
- accurately use and define the following terms:
 - length
 - as long as, longer (than), longest
 - shorter (than), shortest,
 - taller (than), tallest, as tall as
 - weight, weighs less, weighs more
 - heavier (than), not as heavy
 - about the same
 - balance scale
 - holds more, empty, most, holds less, least, full
- align objects one below the other and compare their lengths using language as described above as an example of direct measurement of length.
- make comparisons between objects that explicitly display the attribute of length and use terms such as same as, shorter than, and longer than.
- order objects according to weight.

