Unit Name:
Measurement

Common Core State Standards:

2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

2.MD.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.

2.MD.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.

2.MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

Essential Vocabulary:

- measure
- about
- a little less than
- a little more than
- longer
- shorter
- standard units
- inch
- foot
- metric units

- centimeter
- meter
- tools
- ruler
- yardstick
- meter stick
- measuring tape
- estimate
- sums
- differences

- yard
- length
- equation
- number line
- equally spaced, point
- addition
- subtraction
- unknown

Unit Overview:

In the first part of this unit, Second Graders build upon their non-standard measurement experiences in First Grade by measuring in standard units for the first time. Using both customary (inches and feet) and metric (centimeters and meters) units, Second Graders select an attribute to be measured (e.g., length of classroom), choose an appropriate unit of measurement (e.g., yardstick), and determine the number of units (e.g., yards). Students also measure an object using two units of different lengths, they estimate the lengths of objects using inches, feet, centimeters, and meters prior to measuring, and they determine the difference in length between two objects by using the same tool and unit to measure both objects.

In the second part of the unit, Second Grade students apply the concept of length to solve addition and subtraction word problems with numbers within 100. Building upon their experiences with open number lines, students create number lines with evenly spaced points corresponding to the numbers to solve addition and subtraction problems to 100. They recognize the similarities between a number line and a ruler.

Strategies/Skills:

- Understand that larger units (e.g., yard) can be subdivided into equivalent units (e.g., inches) (partition).
- Understand that the same object or many objects of the same size such as paper clips can be repeatedly used to determine the length of an object (iteration).

- Understand the relationship between the size of a unit and the number of units needed (compensatory principal). Thus, the smaller the unit, the more units it will take to measure the selected attribute.

Video Support:
No videos are referenced for this unit.

Additional Resources:
If you have limited/no internet access, please contact your child's teacher for hard copies of the resources listed in this document.
- NCDPI Unpacking Document: 2nd Grade Unpacking Document
- Please visit the Kahn Academy website at www.khanacademy.org for additional videos and activities. Look under the *Early Math* tab.
- Please visit the Learn Zillion website at www.learnzillion.com to find 2nd Grade math lessons and videos that align with Common Core Standards.