Domain: Measurement and Data Grade: 2

Core Content

Cluster Title: Measure and estimate lengths in standard units.
Standard 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.
MASTERY Patterns of Reasoning:
Conceptual: Students will identify and understand the difference between the standard tools for linear measurement. Students will understand that longer units of measure take fewer repetitions to measure objects. Students will understand that shorter units of measure take more repetitions to measure objects. Students will understand the difference between the size of units (e.g., centimeters/inches, meters/yards, inches/feet, feet/yards). **Procedural:** Students can measure the same object with two different measurement tools and compare the difference in units used. **Representational:** Students can record the measurements using the correct units, and record their observations with a focus on the comparison and unit difference (centimeters vs. inches, inches vs. feet, etc.).

Supports for Teachers

Critical Background Knowledge
Conceptual: Students will understand linear measurement. Students will understand repeated use of the same unit of measurement to measure one object. Students will understand units of measure (paperclips, unifix cubes, inches, feet, centimeters, meters, etc.). Students will understand how to record measurement in proper units.

Code: 2MD2

Procedural:

Students can measure length by comparing units, identify which units are smaller and larger, and compare sizes.
Students can use multiple copies of one object or one object repeatedly end to end to measure another object (e.g., centimeter cubes or inches to measure a book).
Students can correctly use measurement tools (e.g., start at 0; stay in a straight line).

Representational:

Students can record the length of an object using two different units of measurement

Academic Vocabulary and Notation

inch, foot, yard, yardstick, ruler, centimeter, meter, meter stick, measuring tape, length, customary, metric, measure, unit(s)

Instructional Strategies Used	Resources Used
Use a T chart to record measurements of objects using different units of measure. Compare measurements. (Use one T chart for comparing inches to feet, a different one for comparing centimeters to inches, etc.) We are not asking students to convert, just compare.	Aboff, Marcie. *If You Were an Inch or a Centimeter*. Picture Window Books, 2009. Myller, Rolf. *How Big Is a Foot?* Yearling, 1991. Lionni, Leo. *Inch by Inch*. HarperCollins, 1995. http://www.k-5mathteachingresources.com/measurement-and-data-activities.html

Assessment Tasks Used

Skill-Based Task:	Problem Task:
Measure how tall your chair is in inches, then measure how tall your chair is in centimeters. Which measurement required more units? Explain why.	