Topic F

Displaying Measurement Data

2.MD.6, 2.MD.9, 2.MD.1, 2.MD.5

Focus Standards:		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.
		2.MD.9	Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
Instructional Days:		4	
Coherence	**-Links from:**	G1–M3	Ordering and Comparing Length Measurements as Numbers
	-Links to:	G3–M5	Fractions as Numbers on the Number Line
		G3–M6	Collecting and Displaying Data

Building on the work in Topic E, students now connect the process of measuring to displaying data on line plots. In Lesson 23, students measure their own handspan (i.e., the distance from the tip of the thumb to the tip of the pinky with hand fully extended), as well as those of five friends, rounding the lengths to the nearest whole inch. They then share the data as a class. Using tally marks, students create a table to record and organize the data.

In Lesson 24, students display the data from the previous day's table on a line plot, where the measurements are shown on a horizontal scale marked off in whole inches (**2.MD.9**). Then, they generate new data by measuring shoe lengths in centimeters. They make a line plot to display this data by using their rulers to mark off whole centimeters. As they create the line plot, students relate their line plot back to the centimeter ruler and the centimeter ruler to a number line.

Finally, in Lessons 25 and 26, students are presented with different data sets, which they represent using line plots (**2.MD.6**). They then discuss the results and learn how to interpret the data. For example, using the table shown, students create a plot and then answer questions such as, "What was the most common distance reached? What was the least common?" They infer and draw conclusions from the data set and representations, discovering that, while a table is useful for organizing data, a line plot allows for the visual comparisons of the different quantities.

Sit and Reach Distance (cm)	Number of Students
22 cm	1
23 cm	1
25 cm	1
26 cm	2
27 cm	3
28 cm	4
29 cm	3
30 cm	3
31 cm	1
34 cm	1

A Teaching Sequence Toward Mastery of Displaying Measurement Data

Objective 1: Collect and record measurement data in a table; answer questions and summarize the data set.
(Lesson 23)

Objective 2: Draw a line plot to represent the measurement data; relate the measurement scale to the number line.
(Lesson 24)

Objective 3: Draw a line plot to represent a given data set; answer questions and draw conclusions based on measurement data.
(Lessons 25–26)