Lesson 3: Create and Use a Ruler

Standards Alignments

Addressing   2.MD.A.1, 2.MD.A.4, 2.MD.B.6, 2.NBT.B.5

Teacher-facing Learning Goals

- Create and use a ruler with centimeter units.
- Measure to determine how much longer one object is than another.

Student-facing Learning Goals

- Let's create rulers and use them to measure and compare lengths in centimeters.

Lesson Purpose

The purpose of this lesson is for students to use a ruler to measure and compare lengths in centimeters.

In earlier lessons, students measured with centimeters using centimeter cubes and 10-centimeter tools (base-ten blocks). They used multiple copies of the units to measure objects and line segments of different lengths.

In this lesson, students transition from measuring length with physical objects to measuring length with more abstract tools such as rulers, measuring tapes, and meter sticks. They create rulers and describe how a centimeter is represented on the tool (MP2). They learn that a centimeter is represented by the length between two tick-marks on a ruler and that each number on the centimeter ruler represents the distance in centimeters from zero.

Students use the ruler they create in the first activity throughout the lesson, including the cool-down. They should store their rulers for easy access in upcoming lessons.

Access for:

⊕ Students with Disabilities

- Representation (Activity 1)

Instructional Routines

MLR8 Discussion Supports (Activity 1), Number Talk (Warm-up)

Materials to Gather

- Base-ten blocks: Activity 1, Activity 2
- Materials from a previous activity: Activity 2
- Scissors: Activity 1

Materials to Copy

- Centimeter Ruler Template (groups of 1): Activity 1

Lesson Timeline

Warm-up	10 min
Activity 1	20 min
Activity 2	15 min
Lesson Synthesis	10 min
Cool-down	5 min

Teacher Reflection Question

In future lessons, students will learn how to represent whole numbers as lengths from 0 on a number line. How does their work today with represent length units on a ruler help lay the foundation for the more abstract work with the number line? How can you continue to reinforce how measuring tools represent length units in upcoming lessons to prepare for student work with number lines?

Cool-down (to be completed at the end of the lesson)   🕐   5 min

Use a Ruler

Standards Alignments

Addressing   2.MD.A.1, 2.MD.A.4

Student-facing Task Statement

Use your ruler to find the length of each rectangle and figure out how much longer Rectangle B is than Rectangle A. Record any lengths in centimeters.

A

B

Student Responses

11 cm. Sample response: $15 - 4 = 11$