

# Lesson 4: Measure and Estimate in Centimeters

## Standards Alignments

Addressing 2.MD.A.1, 2.MD.A.3

### Teacher-facing Learning Goals

- Estimate lengths in centimeters.
- Use standard rulers to measure length in centimeters.

### Student-facing Learning Goals

- Let's estimate and measure in centimeters.

## Lesson Purpose

The purpose of this lesson is for students to estimate and measure lengths in centimeters. Students use a ruler for the first time.

In previous lessons, students measured lengths in centimeters with physical units and the rulers they constructed.

The purpose of this lesson is to build on their experiences with centimeters to estimate lengths in centimeters and measure lengths with a centimeter ruler. In Activity 1, students estimate the length of objects in the classroom. Objects have been suggested, but they can be changed based on what is available in the classroom. Most of the objects students use to estimate and measure length for the purposes of this lesson should be 5–30 cm long. At least one object should be between 50–90 cm long to give students the opportunity to estimate longer objects and an opportunity to experience the need to iterate a ruler to find a longer measurement in anticipation of future lessons. In Activity 2, students measure the actual length of the objects.

### Access for:



#### Students with Disabilities

- Action and Expression (Activity 2)



#### English Learners

- MLR2 (Activity 2)

## Instructional Routines

Which One Doesn't Belong? (Warm-up)

### Materials to Gather

- Materials from a previous activity: Activity 2

- Objects of various lengths: Activity 1
- Rulers (centimeters): Activity 2

### Lesson Timeline

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

### Teacher Reflection Question

Reflect on how you can reinforce the work done in today's lesson outside of math class. When can you ask students questions involving the estimation work done today? Are there opportunities at other times during the day to ask students to estimate the lengths of objects?

## Cool-down (to be completed at the end of the lesson)

🕒 5 min

### The Pencil

#### Standards Alignments

Addressing 2.MD.A.1, 2.MD.A.3

#### Student-facing Task Statement



1. Estimate: I think the length of the pencil is about \_\_\_\_\_ cm.
2. Measure: The length of the pencil is actually \_\_\_\_\_ cm.

#### Student Responses

1. I think the length of the pencil is about (15–20) cm.
2. The length of the pencil is actually 17 cm.