

Stage 1 Desired Results

Second Grade Module 2-Addition and Subtraction of Length Units

Module 1 students engage in activities designed to deepen their conceptual understanding of measurement and to relate addition and subtraction to length. The work is exclusively with metric units in order to support place value concepts.

Focus Next Gen Standards:

Measure and estimate lengths in standard units.

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

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

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

NY-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.”

Relate addition and subtraction to length.

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

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

Essential Understandings: Students will explore concepts related to the centimeter ruler. They are guided to connect measurement with physical units as they find the total number of length units by laying multiple copies of centimeter cubes (physical units) end to end along various objects.

Learning Outcomes:

Students will know:

- How to measure the length of an object to the nearest whole by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- Addition and subtraction can be used to solve word problems involving lengths that are given in the same units.
- To represent whole numbers as lengths from 0 on a number line with equally spaced points.

Students will be able to do:

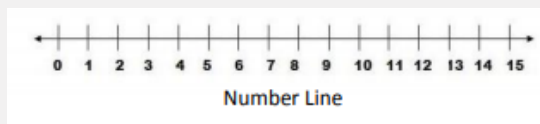
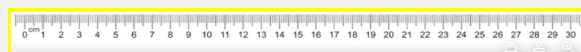
- Use rulers and other measurement tools with the understanding that linear measure involves an iteration of units.
- Estimate lengths using units of inches, feet, centimeters, and meters.
- Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard “length unit.”

Vocab/ Strategies - [Spanish Vocabulary Translation \(NEW\)](#)

- Benchmark (e.g., “round” numbers like multiples of 10)
- Endpoint (point where something begins or ends)
- Estimate (an approximation of a quantity or number)
- Hash mark (marks on a ruler or other measurement tool)
- Meter (standard unit of length in the metric system)
- Meter stick or strip (tool used to measure length)
- Number line Overlap (extend over, or cover partly)
- Ruler (tool used to measure length)
- Centimeter (standard length unit within the metric system)
- Combine (join or put together)
- Compare (specifically using direct comparison)
- Difference (to find the difference between two numbers, subtract the smaller number from the greater number)
- Height (vertical distance measurement from bottom to top)
- Length (distance measurement from end to end; in a rectangular shape, length can be used to describe any of the four sides)
- Length unit (e.g., centimeters, inches)

Suggested tools and Representations

- Centimeter cubes
- Centimeter rulers
- Large and small paper clips
- Meter sticks
- Paper meter strips (Lesson 6 Template)
- Personal white boards
- Tape diagram

**Meter Strip****Number Line****Stage 2 - Evidence****Assessment Evidence****PERFORMANCE TASK(S):**

- ☐ Students will be able to use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units.
- ☐ Students will be able to provide length estimations of various objects followed by recording actual measurements.

OTHER EVIDENCE:

*Ability to explain key vocabulary terms such as benchmark, endpoint, estimate, hash mark, meter, number line and ruler.

Insert Assessments

[Module 2 Assessment Blueprint](#)

[Click Here](#)

Stage 3 – Learning Plan

Each weekly planning document includes objectives, focus of the learning experiences, formative assessments and concept development slides. The instructional days/times below are approximations.

This module suggests 11 instructional days plus 3 "flex days". The purpose of “flex days” embedded within each module is to allow students a deeper dive with mathematics.

September-October 2021

Sept 27-Oct 1	Oct 4-8	Oct 11-15
Week 4	Week 5	Week 6