

# Lesson 1: Whole Numbers on the Number Line

## Standards Alignments

Addressing 2.MD.B.6

Building Towards 2.MD.B.6

## Teacher-facing Learning Goals

- Locate whole numbers on a number line.
- Make sense of the structure of a number line.

## Student-facing Learning Goals

- Let's represent numbers on a number line.

## Lesson Purpose

The purpose of this lesson is for students to understand the structure of the number line and learn how whole numbers can be represented on the number line with tick marks and points.

In a previous unit, students learned about standard length units. They created their own rulers by iterating centimeter cubes and used their understanding of length units to measure the length of objects with rulers, meter sticks, and other tools. Students interpreted the scale of line plots and created their own line plots by relating their structure to the length units on measurement tools.

In this lesson, students learn about the **number line**, a diagram that represents numbers as lengths from 0 using equally spaced tick marks or points, and learn how to locate and represent whole numbers on the number line. Students are introduced to the idea of using a point to represent specific numbers on the number line. Students build on their experiences with measurement to construct a number line to represent numbers within 20. They learn that unlike a linear measurement tool or a line plot, the unit intervals on a number line do not correspond to a specific unit of measure. In the lesson synthesis, students consider how number lines with different unit intervals can be used to represent the same numbers and relationships.

## Access for:

### Students with Disabilities

- Representation (Activity 1)

### English Learners

- MLR8 (Activity 2)

## Instructional Routines

Notice and Wonder (Warm-up)

## Materials to Gather

- Objects of various lengths: 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

In a previous unit, students learned to measure lengths using standard length units. How does this understanding help students understand the structure of the number line?

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

 5 min

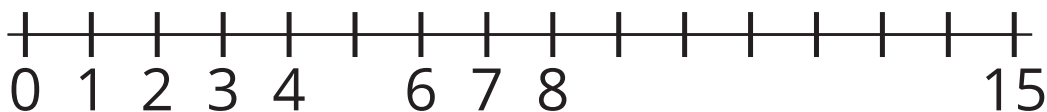
### On the Number Line

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#### Student-facing Task Statement

1.



- Label each tick mark with the number it represents.
- Locate 2 on the number line. Mark it with a point.
- Locate 14 on the number line. Mark it with a point.

#### Student Responses

- Students label the missing numbers.
  - Students draw a point to represent 2.
  - Students draw a point to represent 14.