

1.1 Length and the Number Line

In this unit students

- **measure lengths by iterating length units;**
- **use an understanding of length to introduce the number line.**

Students compare the lengths of two objects (shorter vs. longer) and order three objects by length. They lay multiple copies of a shorter object (the length unit) end to end without gaps or overlaps to develop an understanding of measuring length. Objects that represent length units should be long and skinny and as similar to a line segment as possible (e.g. toothpicks, popsicle sticks, cuisenaire rods, unsharpened pencils etc.) so there is no confusion about which dimension of the three possible dimensions of the 3-D object is being used as the length unit.

Students begin their work with standard units as well. A good transitional activity would be using a 12-inch ruler to measure the side-lengths of a train of 1-inch tiles; this makes the connection between iterating length units (the tiles) and the structure of the ruler clearer. This also sets up the introduction of number lines. Students need to see the subtle connection between points on the number line and the length of the segment between 0 and that point. Students practice counting and reading and writing numerals within the context of measuring and representing lengths and number lines.

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Tasks

[2.OA A Pencil and a Sticker](#)



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