

Comparison of Length, Weight, Capacity, and Numbers to 10

In this Module, we will continue to support our growing number sense by comparing lengths, weights, and capacity of containers. Toward the end of the module, we build to comparing actual numerals.

More or less? Taller or shorter?



Words we will use in this module:

Comparison words:

- Enough/not enough
- Heavier than/Lighter than (weight)
- Longer than/shorter than (length)
- More than/fewer than - used with discrete quantities
- More than/less than - used with volume, area, and number comparison
- Taller than/shorter than (height)
- The same as

Other vocabulary:

- Balance scale
- Endpoint - used to align strings, etc, for direct comparison
- Capacity - used in reference to volume
- Length
- Weight
- Height



Measuring a picture of a shoe with centimeter cubes

What Came Before this Module: We learned all about shapes, both solid and flat. We sorted and compared them, and looked for them around our classroom.

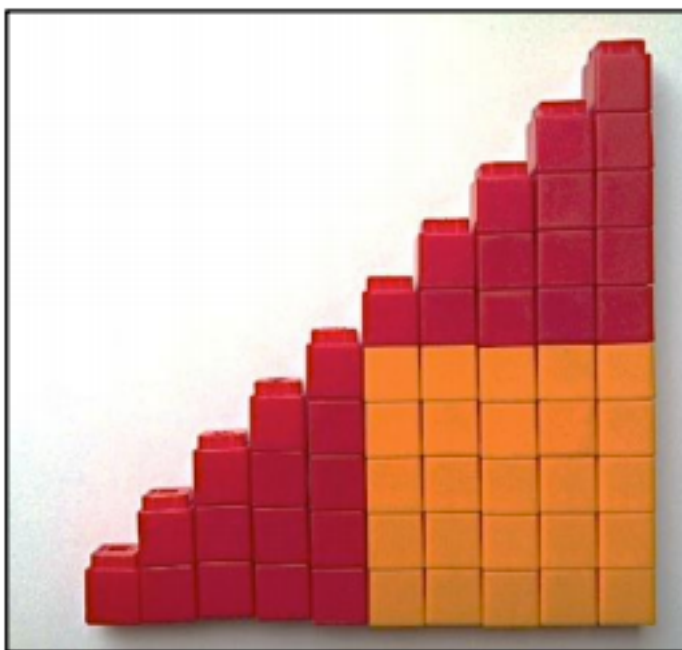
What Comes After this Module: We begin a very exciting part of our learning about numbers: addition and subtraction!

+ How you can help at home:

- Begin asking more than/less than questions about groups of objects around the house
- Encourage measurement activities of all types
- Continue to review and practice counting numbers up to 10

Key Common Core Standards:

- Compare numbers
 - Use the language of “greater than, less than, or equal to” when comparing groups of objects
 - Compare numerals within 10 (e.g. 4 is less than 7)
- Describe and compare measurable attributes (such as length and weight)
 - Directly compare two objects with a measurable attribute in common (e.g. that student is shorter than this student)



Spotlight on Math Models:

Number Towers

Students will use this tool to model and learn concepts of more than/less than.

A Story of Units has several key mathematical “models” that will be used throughout a student’s elementary years.

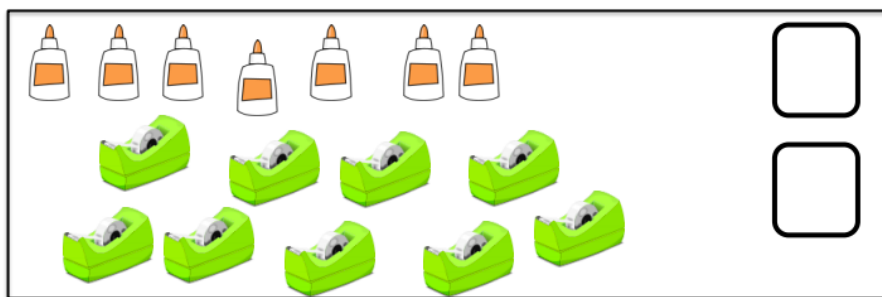
Number towers, also known as number stairs, are representations of quantity made by joining together interlocking cubes. In Kindergarten, they are used to help students literally build their knowledge of cardinality (the number of elements of a set of objects) by erecting towers of various numbers. Number towers are then used to teach concepts of “more/less”, as well as the specific patterns of “1 more than/1 less than”. This model leads to an understanding of comparison and the word “than” in other contexts as well: taller and shorter than, heavier than, longer than, etc.

Students are encouraged to build towers for quantities 1 through 5 in one color, with quantities beyond 5 added on in a second color. This color change provides developmental support for understanding the important benchmark number 5, which will serve them well when they begin to add and subtract within groups of 10 as the year progresses.

Sample problem from Module 3:

Students count and then compare two groups of objects. They use their information to complete the math sentence under the picture.

(Sample taken from Module 3, Lesson 26)



_____ is less than _____.