



Describing and Comparing Measurable Attributes

Key Content from This Unit:

In this unit, students describe measurable attributes using length and weight. They describe and compare two objects with a measurable attribute in common using direct comparison.

When measuring length with direct comparison students are building foundational skills of measurement like understanding that it is important to line objects up at the same starting point.

Vocabulary to Know:

Attribute: a characteristic of an object (like color, shape or size)

Measurable attribute: attributes that can be measured (like height, width, length, weight, temperature)

Length: a measure of how long something is

Weight: a measure of how heavy something is

Sort/Classify: to group according to shared attributes

Direct comparison: comparison made by placing two objects next to each other (length) or by holding an object in each hand (weight) to determine which is longer/shorter, taller/shorter, heavier/lighter, etc.

Measuring musts: always line up the endpoint of the objects!



COMPARISON WORDS

Longer than/shorter than (length)

Taller than/shorter than (height)

Heavier than/lighter than (weight)

Wider/narrower (width)

The same as

What came before this:

Kindergarten children enter school with a variety of skills and experiences related to measurement and comparison. Earlier in the year, students identified and sorted flat (2-D) and solid (3-D) shapes.

What comes after this:

Students will continue sorting, classifying and counting objects using measurable attributes. They will use this as a context for geometry and counting throughout the year.

Common Core Focus:

- Describe measurable attributes of objects in terms of length or weight.
- Compare two objects with a measurable attribute in common like length or weight.
- Describe several measurable attributes of a single object.
- Classify objects into given categories.
- Count the number of objects in each category.

K.MD.1, K.MD.2, K.MD.3

Spotlight on the Math Practices

Model with Mathematics

Mathematically proficient students apply the mathematics they know to solve problems arising in everyday life. They can analyze relationships to draw conclusions. In this unit, students **Model with Mathematics** when they:

- Make observations and generalizations about the measurable attributes of objects.
- Draw conclusions about length or weight.

How Can You Help at Home?

- Ask comparison questions about the length, width and weight of objects in your world
- Encourage your child to compare the measurement of objects with increasing accuracy
- Have your child describe objects in terms of height, length and weight.

KEY MATHEMATICAL MODELS of the COMMON CORE BALANCE SCALE



Balance scales are a tool used to concretely teach children about weights and equivalency measures. Exploring and seeing the concept in action impress the principles on their minds better than more passive activities. Explorations with balance scales in kindergarten focus on direct comparison and develop an understanding of estimation. In future years, balance scales will be used to develop number concepts, understanding of mass versus volume and a foundation for algebraic reasoning.

Students begin comparing the weight of objects informally, like by picking them up. They progress to using balance scales when greater precision is necessary or desired.



Are You Ready for a Scavenger Hunt?

Find an object that is shorter than a crayon.

Find something that is heavier than a book.

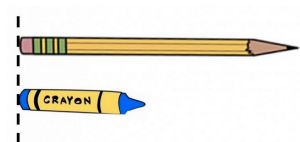
Find an object that is taller than your favorite stuffed animal.

Find something that is wider than your bed.

Find an object that is lighter than an apple.

Find something that is longer than a carrot.

Now make up your own!!!!



Some Resources to Help at Home

- Pan Balance Game with Sid http://pbskids.org/sid/fablab_panbalance.html
- Measuring with Clifford http://pbskids.org/clifford/games/measuring_up.html
- Longer/shorter game http://www.harcourtschool.com/activity/longer_shorter/
- Related read-alouds to find at the library http://astore.amazon.com/k5matteares-20?_encoding=UTF8&node=13