

Core Content

Cluster Title: Measure and estimate lengths in standard units.
Standard 4: Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
MASTERY Patterns of Reasoning:
<p>Conceptual: Students will understand that differences in length can be measured. Students will understand how to express the difference in length between two objects in terms of standard length units.</p> <p>Procedural: Students can compare objects visually, side by side, and measure the difference. Students can express that difference in terms of a standard length unit.</p> <p>Representational: Students can record length and unit of measure of actual objects. Students can record lengths of objects in scientific units (plant growth [K-2 Science, Grade 2, Standard 4, Objective 2], size of rocks [K-2 Science, Grade 2, Standard 2, Objective 1], length of a shadow [K-2 Science, Grade 2, Standard 2, Objective 3], length of a fall [K-2 Science, Grade 2, Standard 3, Objective 1]).</p>

Supports for Teachers

Critical Background Knowledge
<p>Conceptual: Students will understand linear measurement and tools. Students will understand iterating (using one object, end to end, to measure another object). Students will understand units of measure (inches, feet, centimeters, meters, yards). Students will understand the concept of measuring length by comparing units, identify which units are smaller and larger, and compare sizes.</p> <p>Procedural: Students know that, when comparing objects visually, the starting point of both objects must be the same. (Comparing is in first grade core.)</p>

<p>Students know that, when measuring, we start with 0 on the measurement tool.</p> <p>Representational: Students can model the difference between the lengths of two different objects. Students can record length of difference and unit of measure.</p>	
<p>Academic Vocabulary and Notation</p> <p>inch, foot, yard, yardstick, ruler, centimeter, meter, meter stick, measuring tape, length, customary, metric, measurement, measure, unit(s), difference, compare</p>	
<p>Instructional Strategies Used</p> <p>Compare objects visually, side by side, and measure the difference.</p> <p>Express that difference in terms of a standard length unit.</p> <p>Integrate this standard with science units. As you teach the units in the K-2 Science Core, look for opportunities to have students measure.</p>	<p>Resources Used</p> <p>Connelly, Luella. <i>Let's Measure It (Learning to Read Series)</i>. Creative Teaching Press, 1996.</p> <p>http://www.schools.utah.gov/CURR/science/Elementary/Second-Grade.aspx</p>
<p>Assessment Tasks Used</p>	
<p>Skill-Based Task: Put several pictures of items side by side on a worksheet. Have students measure and record the difference in length between the two items.</p>	<p>Problem Task: Annika has a candy bar. Jayme has one as well. Measure the candy bars on the next page. Who has the longest candy bar? How do you know? What measure of length did you choose? Why?</p>

Domain: Measurement and Data

Grade: 2

Annika's Candy Bar:

Jayme's Candy Bar:



Code: 2MD4