

Topics: Measurement, Metric System, Data Collection

Materials List

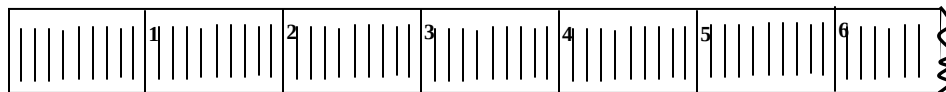
- ✓ I.C. Tube or other long, plastic or wooden object about 3 cm (1¼") wide and at least 50 cm (20") long
- ✓ Meter stick
- ✓ Permanent marker, fine-tip

This activity can be used to support the teaching of:

- Measure and estimate lengths (Common Core Math Standards: Measurement and Data, Grade 1, 1 & 2; Grade 2, 1-4)
- Measurement (Common Core Math Standards: Grade 4, Measurement and Data, 1)
- Convert between measurement units (Common Core Math Standards: Grade 5, Measurement and Data, 1)
- Science & Engineering Practices (Next Generation Science Standards: Grades:1-12)

Half a Meter Stick

Creating Measuring Devices



Students can easily measure the length of objects with their very own Half-a-Meter Sticks...always handy for multitudes of measurement and data collection opportunities.

To Do and Notice

1. Using the meter stick as a guide, mark I.C. tube at centimeter intervals using the permanent marker. Students can make a measuring device of any length; however, I.C. tubes are a little longer than 50 cm, so half a meter is an appropriate length. The number of centimeters that students mark will depend on the length of their object.
2. Optional: mark off .5 cm marks in another color. Millimeter marks are probably too detailed for younger students, but older students can make their sticks as detailed as they wish.
3. Measure, measure, measure! Estimate and measure. Jump and measure. Toss and measure... Measure something every day.

The Content Behind the Activity

The Metric System, or SI (System International), is the official measurement system of every country in the world except 3: Liberia, Burma, and the United States. Scientists everywhere in the world use it. The base unit for length in the Metric System is the meter (equivalent to about 39 inches or a little more than a yard). The Metric System is a base 10 system for easy conversion. There are 10 decimeters in a meter, 100 centimeters in a meter, and 1000 millimeters in every meter.

Students often learn or review measurement at the beginning of each year. However, students need to use their measurement skills on a regular basis in order to really be comfortable with the concept. Having students make their own measurement tools also helps reinforce the concept.

Taking it Further

To create a device to measure volume (space taken up by an object, measured in liters or milliliters), see the RAFT Idea sheet *Graduated Preforms*

Web Resources (Visit www.raft.net/raft-idea?isid=96 for more resources!)

For background information on the Meter and the Metric System, visit the following website. The page also contains several good links to other sites with information about the Metric System: <http://www.essex1.com/people/speer/metric.html>