



What is Non-Standard Measurement?

Learning Target: Using various items, students will measure objects in the classroom. Define standard and non-standard measurement.

Activity: To activate prior knowledge, have students provide estimates of how many paperclips would fit end-to-end across their desks. Write their estimates on the board. Randomly give students any one of three different paperclips (mini, standard, large) and ask them to use the paperclips to measure their desks. Record their actual answers next to their estimates on the board. Lead a class discussion of why the measurements are different. Explain that using an item or items that are created with a standard length will result in a non-standard measurement.

Read aloud *How Big Is A Foot?* by Rolf Myeller. Ask students what would happen if all of our measurements were non-standard measurements. How could we give someone driving directions? How would we be able to explain how tall someone is or how much they weigh? Imagine describing time intervals using non-standard measurements!

Formative Assessment: Place students into groups and ask them to use paperclips and other non-standard items (their feet, hands, a book), along with English and/or Metric rulers to measure various objects and distances throughout the classroom. Students in the group should measure the assigned object or distance differently (i.e. if measuring a desk, one group member will use their hands, another will use a paperclip, a third will use their foot, the fourth will use a ruler, etc.). Each group member will write his/her results down on a group piece of paper. Groups will take turns sharing their results with the class. Collect the papers and use observations of class discussions, activity and the assessment to judge whether or not students have met the learning target.