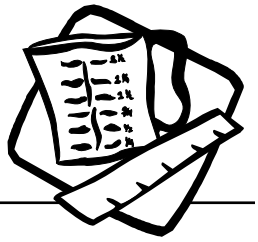
Measuring Rules



Create your own unit of measurement and make a ruler for it.

What you need

Tongue depressors (Popsicle sticks also work well)
Glue
Noodles (spiral or macaroni work well)
Objects to measure
Markers or crayons
Paper and pencil

What to do

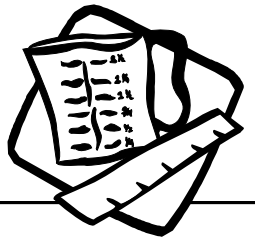
1. Choose something to measure. Lay out noodles next to it to find out how many noodles long is it.
2. Create a "Noodle Ruler":
   a. Lay out noodles on the tongue depressor so they are touching end-to-end. How many noodles fit on the tongue depressor?
   b. Glue the appropriate number of noodles to the tongue depressor. Make sure the ends are touching.
   c. Color and decorate your Noodle Ruler.
3. Measure the same object you measured earlier with your new ruler. Is it easier?
4. Find some other objects to measure:
5. Estimate how many noodles long the objects will be when measured with your "noodle ruler." Record your estimate.
6. Measure the objects with your "noodle ruler."
7. Compare your estimate to your measurement.
8. Record your measurements.

What to ask

- Does it matter if there are spaces in between the noodles on your ruler?
- What if the units on your ruler are not are not all the same size?
- What if the object you are measuring is just a little more or less than a noodle?
- How do you measure objects bigger than your ruler?

Did you know?

One of the important aspects of measurement is the use of a unit. In the metric system for linear measurement, the unit is meters because everything is relative to the meter like centimeter, kilometer and so on. Building an understanding that a unit is a uniform size is important in understanding how measuring works.



What's next?

- Make another ruler using a different unit. Compare your measurements from each ruler. Which ruler do you think would give the most accurate measurements?
- Figure out how to make your ruler more accurate.
- Make up a measuring system based on your units. What will you use in your system to measure very small things? Long distances?

To learn more

How Tall, How Short, How Far Away?
by David A. Adler
This book is a kid-friendly explanation of the history of measurement.

Measuring Penny
by Loreen Leedy
Lisa wants to measure her dog and she finds many different ways to measure her.

How Big Is a Foot?
by Rolff Myller
A king measures the length and width of his foot and uses these measures to order a new bed.

How it helps with school

Texas PreKindergarten Curriculum Guidelines
Number and Operations, Measurement

Texas Essential Knowledge and Skills (TEKS) Standards
Number, Operation, and Quantitative Reasoning: K.1A-B
Measurement: K.10A-B; 1.7A-B; 2.9A-B
Underlying Processes and Mathematical Tools: K.13D, K.14A, K.15; 1.11D, 1.12A, 1.13; 2.12D, 2.13A, 2.14

National Council of Teachers of Mathematics (NCTM) Standards
Measurement, Problem Solving, Communication, Representation