



Chapter 12 Measuring Length

Chapter 12 focuses on measuring length. Children come to school with a lot of informal experience with measurement. In this chapter, they work to build the concept of a unit and begin to use units to quantify their measurements. As they practice measuring, children develop familiarity with standard units and learn to convert between units. They identify benchmark items to approximate these units, and then they estimate and measure the length of items with these benchmarks and with the actual units. In this chapter, children measure to the nearest inch, foot, yard, centimeter, and meter.

About the Math

- In order to become competent at measurement, children need familiar examples of the standard units as benchmarks.
- By using a ruler to locate and label the points that are halfway between the whole numbers on the number line, children are expanding their understanding of the number line. It is not just a way to put counting numbers visually in order, it is also the home of many more numbers than can be used to represent length.
- Estimation highlights the role that multiplication and division play in measurement. When estimating, a child might ask himself, “How many units will fit in this distance?” This is similar to one way people conceive of division.

Vocabulary

estimate

To find about how many or how much

units

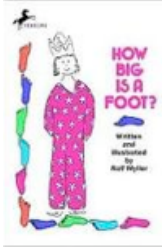
The pen is about 4 units long.

Literature Connection

How Big Is a Foot?

By Rolf Myller

Math Concept: exploring standard and nonstandard units



In the Car Activities

- ★ Say numbers and have the child tell the nearest multiple of 10.
- ★ Present rounding riddles (My number rounds to 50 and the ones digit is double the tens - 48)

Family Fun

What's My Length?

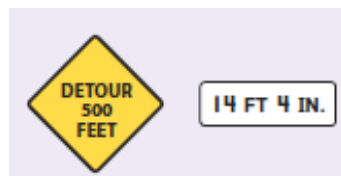
Work with your child to play this game. Your child will play a similar game in Lesson 4.

- Think of a simple measurement in inches, feet, or yards. For example, you might use 1 foot 6 inches, or 5 yards. Do not share the measurement with your child. Keep it a secret.
- Have your child ask yes/no questions to try and guess your secret measurement. Some possible questions might be:
 - Is it longer than 1 foot?
 - Is it as long as this room?
 - Is it shorter than my hand?
- Have your child continue asking questions until he or she has correctly identified the measurement.
- Switch roles and play again.

Reading Road Signs

Together, find road signs listing different distances.

- When traveling around town or on a highway, play an informal game to find road signs that give distances.
- Call them out as you see them. After reading each one, tell whether it is a short distance or a long distance.



- After returning home, you might want to draw some of the signs you saw on your trip.