

# Use Multiplication to Convert Measurements



Dear Family,

This week your child is learning to use multiplication to convert measurements.

When you **convert** from a larger unit, such as a pound, to a smaller unit, such as an ounce, you use multiplication.

Knowing that there are 16 ounces in 1 pound, you can find the number of ounces in a number of pounds by multiplying the number of pounds by 16. For example, to find how many ounces are in 10 pounds, you multiply 10 by 16.

When your child is converting larger units to smaller units, he or she is not only becoming more familiar with the relative sizes of units, but is also getting practice with multiplication!

Sometimes it is convenient to use a table to convert measurements. The diagram below shows that each pound is the same as 16 ounces.

**10 pounds (lb)**

1 lb	1 lb	1 lb	1 lb	1 lb	1 lb	1 lb	1 lb	1 lb	1 lb
16 oz	16 oz	16 oz	16 oz	16 oz	16 oz	16 oz	16 oz	16 oz	16 oz

**160 ounces (oz)**

The table below shows how many ounces are in a number of pounds.

<b>Pounds (lb)</b>	1	2	3	4	5	6	7	8	9	10
<b>Ounces (oz)</b>	16	32	48	64	80	96	112	128	144	160

When your child writes  $p \times 16$  to tell how many ounces are in  $p$  pounds, he or she is applying the skill of writing an expression. The expression gives the formula for converting any number of pounds to ounces.

Invite your child to share what he or she knows about converting measurements by doing the following activity together.

## ACTIVITY USING MULTIPLICATION TO CONVERT MEASUREMENTS

Do this activity with your child to use multiplication to convert measurements.

**Materials** ruler or yardstick

- Measure the stride of your child. Put a mark at your child's toe to identify a "starting point."
- Ask your child to take a long step and put another mark at the toe of the foot taking the step.
- Measure the distance in *feet* between the marks. Round the measurement to the nearest foot.
- Now, find the measure of your child's stride in inches by converting feet to inches. There are 12 inches in one foot.
- Talk with your child about different ways you could convert the measurement, such as using a diagram or a table, drawing a picture, or writing an expression. Ask: *How could you use a different way to convert the measurement?*
- Now, measure the stride of another family member. First, find the measure in feet and then convert it to inches. Compare the length of this stride to the length of your child's stride. Who has a longer stride? Who has a shorter stride?

