

Grade 4 Module 7

Tips for Families

Key Concepts Overview

Focus TEKS: **4.4H, 4.5A, 4.5B, 4.8A, 4.8B, 4.8C, 4.9A, 4.9B**

The focus of Module 7 is exploring measurement (including metric units and customary units) and data, applying multiplication to convert measurement units, and problem solving with measurement. Your student will:

- ☐ Convert larger units of length, weight, mass, liquid volume, capacity, and time to smaller units of length, weight, mass, liquid volume, capacity, and time, or vice versa.
- ☐ Add and subtract mixed measurement units.
- ☐ Convert larger mixed measurement units with fractional parts to smaller units.
- ☐ Use the Read–Draw–Write process to solve word problems, including multi-step measurement word problems.
- ☐ Use a measurement data set to create frequency tables and dot plots and interpret the data.
- ☐ Create a **stem-and-leaf plot** and interpret the data.
- ☐ Use data and graphical representations to solve problems.

You can use the checklist above to help monitor your student’s progress of the knowledge and skills in this module. Daily sample problems with solutions and thought bubbles are found in the Homework Helper pages in the Succeed Student Edition to help you support your student as they work at home.

Additional Ways to Help at Home

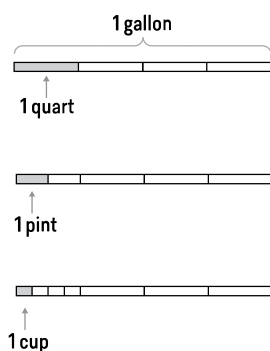
- Find packages, cartons, cans, or boxes in your kitchen that have labels that show weights or capacities. With your student, convert the measurements to smaller units or larger units. For example, your milk container might have a capacity of 2 quarts. Convert to find out how many cups that is. (2 quarts = 8 cups) Find real-world situations throughout the day that will help her think about conversions. For example, ask her whether she would have enough milk for a soup recipe requiring 9 cups if she had a 2-quart container full of milk. (No; 2 quarts is only 8 cups.)
- Find a tape measure that measures distances greater than 1 yard and show it to your student. Pull out the tape and ask him to examine the measurements. Are they metric units (i.e., centimeters) or standard units (i.e., inches)? How can he tell? Next, ask him to use the tape measure to prove the equivalence of measurements. For example, you might ask him to prove that 1 foot 3 inches is equivalent to 15 inches.
- With your student, use index cards or small pieces of paper to make eight pairs of cards that show equivalent measurements. For example, on one card, write pounds; on another card, write 52 ounces. Use measures of length, weight, capacity, and time. After you have made the cards, play a memory game with your student to match the equivalent measurements.



- Have your student measure several similar objects and record the measurements. Then have him display the data by using a dot plot and/or a stem-and-leaf plot. Your student can create a question that can be answered by using the data. For example, if he measures the heights of several pieces of furniture, a possible question is, “What is the difference in height between the tallest and shortest pieces of furniture that were measured?”

Terms

Customary system of measurement: a measurement system commonly used in the United States which includes such units as yards, pounds, and gallons



Key: the notation on a data display explaining what symbols represent

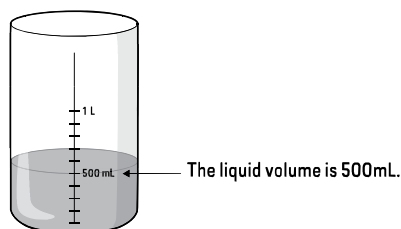
Number of Pages Read Last Week

Stem	Leaf
4	6 6 9
5	
6	0 2 2 5 6 8
7	0 5 5 7

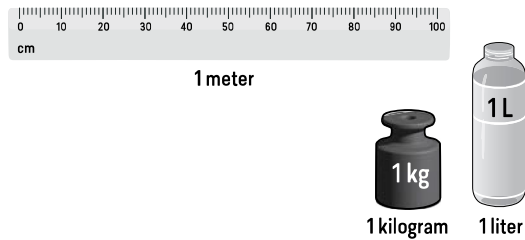
Key

6 | 2 means 62 pages

Liquid volume (*Volumen líquido*): the amount of three-dimensional space a liquid takes up



Metric system of measurement: a base-ten measurement system used internationally which includes such units as meters, kilograms, and liters



Models

Common Measurement Conversions

1 kilometer	1,000 meters
1 meter	100 centimeters
1 yard	3 feet
1 foot	12 inches
1 pound	16 ounces
1 kilogram	1,000 grams
1 liter	1,000 milliliters
1 gallon	4 quarts
1 quart	2 pints
1 pint	2 cups
1 minute	60 seconds
1 hour	60 minutes
1 day	24 hours
1 week	7 days

Frequency Table

Pencil Length (inches)	Tally	Frequency
3	I	1
$3\frac{1}{2}$	I	1
4	III	3
$4\frac{1}{2}$	III	4
5	IIII	5
$5\frac{1}{2}$	III	3
6	III	3
$6\frac{1}{2}$	II	2
7	I	1
$7\frac{1}{2}$	I	1

Stem-and-Leaf Plot

Lengths of Baby Garter Snakes (cm)	
Stem	Leaf
17	9
18	1 3
19	2
20	0
21	6
22	0 0 5
23	0 0
24	5
key: 17 5 means 17.5	

Dot Plot

