



Chapter 15 Capacity, Weight/Mass, and Temperature

In this chapter, children measure capacity, weight, mass and temperature. Through hands-on investigations and practice, they learn to recognize which tools and units are most appropriate for making different types of measurements (for example, gallons to liters to measure the capacity of a large tub; pounds or kilograms to measure the weight or mass of a person).

About the Math

- There is a technical difference between capacity and volume. Capacity is a measurement of how much material an object can hold and volume is a measurement of how much space that object takes up. Technically, a solid block has volume, but no capacity. A container has capacity, and the liquid it holds has a volume.
- Metric measurements use a base-ten system, so it is very easy to convert from one unit to another.
- It is more difficult to compare the weights of objects by appearance and feel than it is to compare, for example, lengths. Children need to use their senses to experience weight.
- At this stage of learning, it is not necessary for children to make any distinction between weight and mass.

Vocabulary

ounce



A slice of bread weighs about
1 ounce.

gallon



1 gallon = 4 quarts

capacity



lighter, lightest



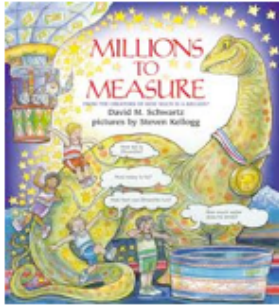
A pencil is lighter than an apple.
The pencil is the lightest object.

Literature Connection

Millions to Measure

By David M. Schwartz

Math Concept: exploring weight and capacity



In the Car Activities

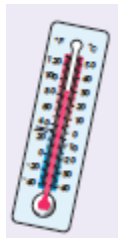
- ★ Name things that can be measured and the appropriate tool.

Family Fun

What Is the Temperature?

Work with your child to record the daily air temperature.

- Each day for a week, look in the newspaper to find and record the daily forecast of high and low temperatures.
- Look at your list of temperatures for the week. Talk about which day was the warmest and which was the coldest. Talk about what clothes you might wear in these different temperatures.
- With your child, make a prediction for tomorrow's high and low temperatures.
- Continue recording temperatures beyond the week, if you wish. Then use this information to help your child plan his or her clothes or activities.



Market Measures

Work with your child to identify units of measure at the store.

- Together, look at flyers for the supermarket. Then take a visit to the store and look at different products on the shelves.
- Talk about the weights and liquid measures of meats, juices, cereal, and other products.



- Compare prices of products in different sizes. Decide which is the best buy.
- Have fun shopping and learning together!