

FAMILY MATH

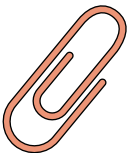
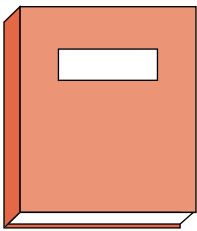
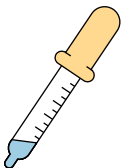
Understanding Place Value Concepts through Metric Measurement

Dear Family,

Your student is learning to estimate and measure weight and liquid volume. They use grams and kilograms for measuring weight, and they use liters and milliliters for measuring liquid volume. Your student is learning that liquid volume is the amount of space a liquid takes up and that capacity is the amount of liquid a container can hold. They engage in hands-on activities to understand the relationships between smaller and larger units. They use what they know about place value and solve word problems that have measurement contexts.

Key Terms

capacity
gram (g)
kilogram (kg)
liquid volume
liter (L)
milliliter (mL)
operation

Weight 1,000 grams = 1 kilogram		Liquid Volume 1,000 milliliters = 1 liter	
Gram	Kilogram	Milliliter	Liter
			
A paper clip weighs about 1 gram.	A dictionary weighs about 1 kilogram.	4 drops of water is about 1 milliliter.	A large water bottle holds about 1 liter.

At-Home Activities

Grams or Kilograms?

Practice choosing the best unit for measuring different objects. Find various household items that your student can hold. Let them decide if it would be better to weigh the items in grams or kilograms. Consider the following examples.

- “Does it make sense to measure the weight of a pen in grams or kilograms? Why? What else do you see that we could measure in the same unit?”
- “Does it make sense to measure the weight of a basket of laundry in grams or kilograms? Why? What else do you see that we could measure in the same unit?”

Which Holds More?

Help your student find two empty containers that hold different amounts of liquid, such as cups, food storage containers, or water bottles. Ask your student to predict which of the two containers can hold less water. Completely fill that container with water. Then pour the water from that container into the other container. Have a towel handy! If the water fits inside the container without spilling over, the second container has a greater capacity than the first. If the water overflows, the first container has a greater capacity. Talk about which container has the greater capacity and why. Find two more different-size containers and try again.