

Dear Parents,

Over the next week, we will be learning about **volume** in math! The information below will help you to support your child as they learn these exciting, yet important third grade math skills.

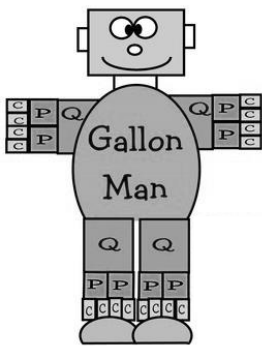
The GOAL:

By the end of the unit, your child should be able to **estimate and solve word problems involving liquid volume and mass.**

What is liquid volume?

Liquid Volume is the amount of space in a container.

In the customary system, cups, pints, quarts, and gallons are used to measure **liquid volume**.



Estimate:

- Would a bathtub hold 10 pints of water or 10 gallons of water?
- Would a pitcher hold 6 quarts of lemonade or 6 cups of lemonade?

In the metric system, we use liters to measure **liquid volume**.



Estimate:

- Would a teacup bottle hold a liter, more than a liter, or less than a liter?
- Would a fish tank hold a liter, more than a liter, or less than a liter?

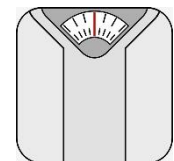
What is mass?

Mass is the amount of matter in an object.

In the customary system, we use ounces and pounds to measure **mass**. A strawberry weighs about 1 **ounce**. A pineapple weighs about 1 **pound**.

In the metric system, we use grams and kilograms to measure mass. A paper clip is about 1 **gram**. A box of paperclips is about 1 **kilogram**.

We can weigh objects using scales or pan balances.



Solve one-step word problems using liquid volume and mass:

- Tara's dog weighs 34 kg. Her cat weighs 27 kg. What is their combined weight?
- Mike is making 5 glasses of iced tea. He uses 2 tablespoons of sugar in each glass of iced tea. How many tablespoons of sugar did he use?
- Ann's hamster and gerbil have a combined weight of 35 grams. Select the grams that would make the mass of the two pets combined:
16 g. 17 g. 29 g. 19 g.

Grade 3 Math: PA Core Math Standards in Unit 5:

CC.2.4.3.A.1: Solve problems involving measurement and estimation of temperature, liquid volume, mass or length.

-- HOW YOU CAN HELP AT HOME --

- Allow students to help you measure ingredients and prepare meals at home when following a recipe
- When you encounter a container, ask students how much liquid they estimate it will hold (gallons, quarts, pints, cups, liters)
- When holding an object, ask students to estimate how much it weighs (ounces, pounds, grams, kilograms)
- Use a scale to weigh objects
- Compare weight of objects

-- KEY MATH VOCABULARY --

Liquid Volume- the amount of space in a container:

Customary System: cups, pints, quarts, gallons

Metric System: liters

Mass- the weight of an object

Customary System: ounces, pounds

Metric System: grams, kilograms

