

5.1



Understanding Standardized Recipes

READING PREVIEW

Key Concepts

- Learning how kitchens find recipes
- Organizing recipes
- Understanding the sections of a standardized recipe
- Reading recipes
- Understanding measurement conventions and systems
- Understanding measuring techniques

Vocabulary

- household units
- portion
- recipe
- standardized ingredients
- standardized recipe
- tare weight
- volume
- yield

Finding Recipes

A **recipe** is a written record of the ingredients and preparation steps needed to make a particular dish.

Chefs collect and adapt recipes from a number of sources (including collecting them from other chefs and restaurants). The following are five common sources of recipes:

- **Cookbooks.** Among the best sellers in publishing, cookbooks are available in bookstores and libraries. Cookbooks may be written for use in professional kitchens or for home cooks. Some are considered general purpose. Others may feature a specific cuisine, ingredient, or cooking style.
- **Periodicals.** Newspapers and magazines that target the general public often feature recipes. Trade magazines and journals meant for caterers, chefs, bakers, and other foodservice professionals also publish recipes.
- **Food Producers and Manufacturers.** It makes sense that the producers of



Source: Stockbyte/Getty Images



Source: Andy Crawford/Dorling Kindersley Limited

food and the manufacturers of foodservice equipment would offer recipes to encourage the use of their products. They may be published as part of a newspaper or magazine advertisement, in a booklet, or through a website.

- **Cooking Contests.** A variety of organizations sponsor cooking contests. They generally publish winning recipes in cookbooks, in periodicals, and on the Internet. Reality shows like *Top Chef* are also a form of contest, and recipes are often reproduced in articles, cookbooks, and on websites.
- **The Internet.** The Internet contains many free recipes and recipe databases as well as a growing number of subscription services. You may be able to create and organize your own recipe collection on these sites. Cooking-related websites are produced by organizations such as the Food Network, cookbook authors including Mark Bittman, and bloggers such as Amanda Hesser at Food52.



READING CHECKPOINT

What are some common sources for recipes?

Organizing Recipes

Chefs often have large recipe collections that come from a number of different sources. To get the most out of their collections, they need ways to organize recipes so that they can find them quickly and use them to create or update their menus. There are several ways to organize recipes. Some are as simple as putting printouts or copies of recipes into a notebook with tabbed dividers or using folders. Software applications that provide recipe management tools are another good option.

A recipe collection that is organized into groups is an important tool for any cook or chef. If a collection is properly organized, it is easy to find the recipe you need quickly.

Common Recipe Categories

Organizing Idea	Possible Recipe Categories
Regional or ethnic recipes	Mediterranean, Texas, Russian
Historic recipes	Medieval England, colonial America
Recipes using a specific main ingredient	Fish, chicken, broccoli, mushrooms
Recipes for specific parts of a menu	Starters, main dishes, side dishes, desserts
Recipes for specific types of meals	Breakfasts, brunches, lunches, dinners, receptions, buffets
Recipes using a specific cooking method	Roast, stir-fry, barbecue, braise, sauté
Recipes for specific types of dietary needs	Gluten-free, diabetic, vegetarian, vegan

Recipes can be grouped for easy retrieval in a recipe category. Kitchens, magazines, cookbooks, and chefs create their own categories. Recipe categories can be based on regional dishes, ethnic dishes, dishes based on the main ingredient, and the part of a menu for which the dish is suited.



READING
CHECKPOINT

What are the benefits of organizing recipes into categories?

Standardized Recipes

A **standardized recipe** is a recipe designed to suit the needs of an individual kitchen. Using and writing standardized recipes is a big part of a professional chef's work. This type of recipe is different from recipes you might

CULINARY SCIENCE

Recipes on the Internet

The Internet is such a big source of cooking information that a person hardly knows where to begin. Of course, typing keywords into a search engine will produce a host of suggestions. (Try entering "tomato soup" in a search program such as Google or Yahoo. You'll find more than 1 million references!) You can limit the number of results from a basic Internet search by adding more terms. For instance, you could search for "tomato basil soup," or "creamy tomato soup," or "tomato soup with rice." You will see that the results from your search are likely to point you to a number of different websites.

A well-established website organizes its recipes and other information in a number of ways. The larger the collection, the more ways it can be organized. That allows the users to find what they need quickly. One such site is Epicurious, a site affiliated with Condé Nast, the publisher of the food-oriented magazines *Gourmet* and *Bon Appétit*. Epicurious, which bills itself as "the world's best recipe collection," started building its database of recipes in 1994. The name *Epicurious* is partially drawn from Epicurus, the Greek philosopher. The term *epicure*, someone who enjoys the finest things, comes directly from his name, as does the term *epicurean*.

Some sites specialize in large-volume recipes meant for the professional kitchen. Unichef and



Source: NetPhotos/Alamy

StarChefs are two sites that are interesting to explore, but there are many, many more. No matter what the source of your recipe, it is important that it be rewritten so that it is based on the ingredients, equipment, and serving standards used in your restaurant.

Research

Visit Epicurious. Investigate its recipe categories. Print out three recipes, each from a different recipe category. Describe the standardized recipe format used by Epicurious.

find in a consumer publication, such as a book or magazine. It is customized to meet the needs of an individual kitchen and can be used to manage food purchasing, food production, food safety, and food cost more effectively.

Purpose of Standardized Recipes Standardized recipes help food-service businesses because standardized recipes do the following:

- Support consistent quality and quantity.
- Encourage efficient purchasing and preparation.
- Reduce costs by eliminating waste.
- Improve customer satisfaction by producing a consistent dining experience.
- Enable the wait staff to answer guests' questions accurately and honestly. (For example, the type of oil used in a dish may matter very much to a guest with allergies.)
- Provide accurate information that can be used to determine the costs of a recipe as well as of an individual portion.

Sections of a Standardized Recipe Standardized recipes may include a number of sections. *The red sections listed below appear in almost all standardized recipes.*

- **Title.** The title of the recipe identifies the food item or dish.
- **Recipe Categories.** By identifying possible recipe categories, you can group and organize recipes in a way that makes retrieval easier. Sometimes recipes for simple items or items used in other recipes are classified as basic recipes. For example, a restaurant may have a basic recipe for boiled rice, baked potatoes, or a sauce.
- **Yield.** The **yield** of a recipe describes the measured output, expressed as one or more of the following: the total weight, the total volume, or the total number of portions. A **portion** is the serving size for one person expressed in pieces, weight, or volume.
- **Ingredients List.** This is one of the most important elements of a recipe. Ingredients are listed in the order in which they are needed. The ingredients list contains the name and amount of the ingredients you need. It may include advance preparation required (for example, trimming, peeling, dicing, melting, or cooling). It may also indicate a specific variety or brand. A standardized recipe shows the measurements as required for a recipe, however, so there may be additional work required in order to determine how much of an ingredient to purchase.
- **Equipment.** A recipe may list the equipment required for preparing, cooking, storing, holding, and serving an item. This information may be a separate list or may be indicated in other parts of the recipe. Often a recipe does not specify any particular equipment, and you will need to use your understanding of basic kitchen procedures to pick appropriate equipment.

FOCUS ON Nutrition

Learning from Recipes

Recipes often list nutritional information about each dish. You can see how ingredients translate into calories, fat, carbohydrates, protein, vitamins, and minerals.

Blueberry Muffins

YIELD: 1 Dozen Muffins

SERVING SIZE: 1 Muffin

Ingredients

- 16 oz (3¾ cups) All-purpose flour (plus 2 Tbsp to coat berries)
- 1½ tsp Double-acting baking powder
- ½ tsp Salt
- ¼ tsp Nutmeg, ground
- 4 oz (½ cup) Butter at room temperature
- 8 oz (1 cup) Sugar
- 1 Egg, large
- 6 fl oz Milk
- ½ tsp Vanilla extract
- 1 cup Blueberries, washed and patted dry
- Optional* Cooking spray

Equipment

- **Appliances:** Oven, standing mixer with paddle attachment
- **Cookware:** Muffin tins, paper muffin tin liners, cooling rack
- **Hand Tools:** Scale (*optional*), measuring cups and spoons, sifter, mixing bowls, whisk, rubber spatula, 2-oz scoop

Method

1. Preheat the oven to 400°F.
2. Line muffin tins with paper liners or spray them lightly with cooking spray.
3. Sift together 16 oz flour with the baking powder, salt, and nutmeg.
4. Blend the milk, egg, and vanilla extract in a separate bowl.
5. In a standing mixer with a paddle attachment, cream together the butter and sugar until very light and smooth, about 2 minutes.
6. Add the flour mixture in three additions, alternating with the liquid ingredients, mixing on low speed and scraping down the bowl to blend the batter evenly.
7. Increase the speed to medium and mix until the batter is very smooth, another 2 minutes.
8. Mix 2 Tbsp flour with berries to coat them evenly.
9. Fold the blueberries into the batter, distributing them evenly.
10. Fill each muffin cup ¾ full with batter using the 2-oz scoop.
11. Bake until the top of the muffin springs back when lightly pressed, 18 to 20 minutes.
12. Cool the muffins in the muffin pan on cooling racks for 5 minutes. Then remove them from the muffin pan and finish cooling them on the rack.

Serve warm or at room temperature. If desired, remove paper liner from muffin before serving. Store in an air-tight container with lid.



Recipe Categories

Muffins, Breakfast Foods, Blueberries



Chef's Tip

1. Coating blueberries with flour keeps them suspended in the batter so they don't all fall to the bottom of the muffin.
2. Shake baking powder before using. Ingredients can separate and need to be mixed for muffins to rise properly.

Potentially Hazardous Foods

- Egg
- Milk

HACCP

- Keep cold ingredients chilled below 41°F.

Nutrition	
Calories	195
Protein	3 g
Fat	9 g
Carbohydrates	26 g
Cholesterol	39 mg

Weight or Volume?

In the Blueberry Muffin recipe on the previous page, did you notice that there are two amounts shown for the flour, butter, and sugar? That's because the first measurement is for weight and the second measurement is for volume. But how do you know when a measurement is a weight and when it is a volume?

In a standardized recipe, dry ingredients that are more than a few tablespoons are usually shown by weight, not by volume. So, for example, the 16 oz of flour in the blueberry muffin recipe on the previous page is 1 lb of flour (16 oz = 1 lb; see "Weight Measurements" on page 151). However,

the blueberry muffin recipe also shows the equivalent volume measurement of $3\frac{3}{4}$ cups. The rule is: When a measurement for a dry ingredient is in ounces, it's a weight measurement. If you don't have a scale, you need to convert the weight into volume (and this will differ for every ingredient).

Lab Activity

Weigh 16 oz of flour and 16 oz of puffed rice. Measure the volume of these equal weights. Can you see why it is important not to confuse a weight measure with a volume measure?

Chef's Tip

Where's the Garnish?

Service information is often included in the Method section, but may not appear in the Ingredient List. Read all recipes completely so that you are prepared with the appropriate accompaniment or garnish.

- **Method.** This portion of a recipe includes the detailed steps required to make the dish. It may also list appropriate equipment and critical control points for safe food handling.
- **Service.** A recipe may include portioning information (if this information is not already listed in the Yield section of the menu), finishing and plating instructions, appropriate accompaniments (side dishes, sauces, and garnishes), and proper service temperatures.
- **HACCP.** As you learned in Section 1.3 of this book, Hazard Analysis Critical Control Point (HACCP) requires identification of critical control points (CCPs), or specific points in the process of food handling where you can prevent, eliminate, or reduce a hazard. A recipe may list the CCPs separately, or they may be included in the Method or Service sections. CCPs sometimes occur in the list of ingredients when potentially hazardous foods such as eggs or milk are used. Often when the recipe mentions temperatures and times for preparation, holding, storage, and reheating, a CCP is involved.

FOCUS ON Safety

Critical Control Points

Before you begin preparation, check the Method section for critical control points where specific temperatures or careful handling is essential to food safety.



READING
CHECKPOINT

What elements appear in almost all standardized recipes?

Reading Recipes

It is important to read a recipe before you begin preparation. This helps you work efficiently. You can plan your work and prepare the dish correctly. To understand and apply standardized recipes, use the PRN method for reading recipes.

PRN Method for Reading Recipes

- Preview** To get the big picture.
- Read** To focus carefully on the specifics of the recipe.
- Note** Write any adjustments and plans for preparation.

The following are some of the questions you may need to ask yourself as you read through a recipe:

- **Yield.** Does the recipe make enough or too much? (See the next section of this chapter to change the yield of a recipe.)
- **Ingredients.** Are you familiar with all the ingredients? Do you have all the ingredients? If not, can substitutes be used? Are you familiar with the appropriate preparation of all the ingredients? Some recipes may not list all the preparation steps; they rely on your knowledge to make appropriate choices.
- **Method.** Are you familiar with the techniques listed in the Methods section? Do you have all the necessary equipment? If not, is there an alternative method and will further adjustments be required in timing? (Chapter 8 describes most cooking methods called for in standardized recipes.)
- **Timing.** Do you have to adjust the recipe's timing? Which ingredients have to be prepared in advance? Do you need to preheat equipment?
- **Serving and Holding.** What do you do with the finished product? Do you have the appropriate accompaniment or garnish? Check any service and critical control point instructions.

If any of the questions you asked during your preview and read-through

FIGURE 5-1

Writing Notes

A chef writes notes about recipe adjustments or plans for preparation.

INFERRING Why would a chef write down notes about adjustments to a recipe rather than just remembering the changes?

Source: Doug Menezes/Getty Images



make you adjust the recipe in any way, jot down the changes you will make in the recipe.



READING CHECKPOINT

Describe the PRN method for understanding a recipe.

Measurement Conventions and Systems

Measurement Conventions Recipe ingredients are listed in a recipe according to one of three measuring conventions: count, volume, or weight. In addition to recipe measurements, there are measurements used when you buy ingredients. These measurements are referred to as *purchase units*.

- **Count.** When an ingredient is listed in the recipe based on the number of whole items, it is measured by count. Count is good for measuring **standardized ingredients**, which are ingredients that have been processed, graded, or packaged according to established standards. Eggs, shrimp, and butter, for instance, are standardized ingredients. For nonstandardized ingredients, count is less accurate. The weight of a peeled and cored apple, for example, depends on the size of the apple and the amount of waste. Similarly, one chef's small garlic clove might be another chef's medium garlic clove.
- **Volume.** The measurement of the space occupied by a solid, liquid, or gas is its **volume**. Volume measurements are best for measuring liquids and small amounts of dry ingredients such as spices or baking powder. Hand tools such as measuring cups, measuring spoons, ladles, and scoops are used to measure the volume of an ingredient.
- **Weight.** The weight of an ingredient is the measurement of its mass, or heaviness. Scales can weigh any ingredient, liquid or dry. Weight measures are typically preferred to volume measures because weight can be measured with greater accuracy.

Measurement Systems Weight and volume may be measured by using either the U.S. system or the metric system.

In the U.S. system, volume is measured in terms of fluid ounces (fl oz), pints (pt), quarts (qt), and gallons (gal). Recipes often use what are referred to as **household units** including teaspoons (tsp), tablespoons

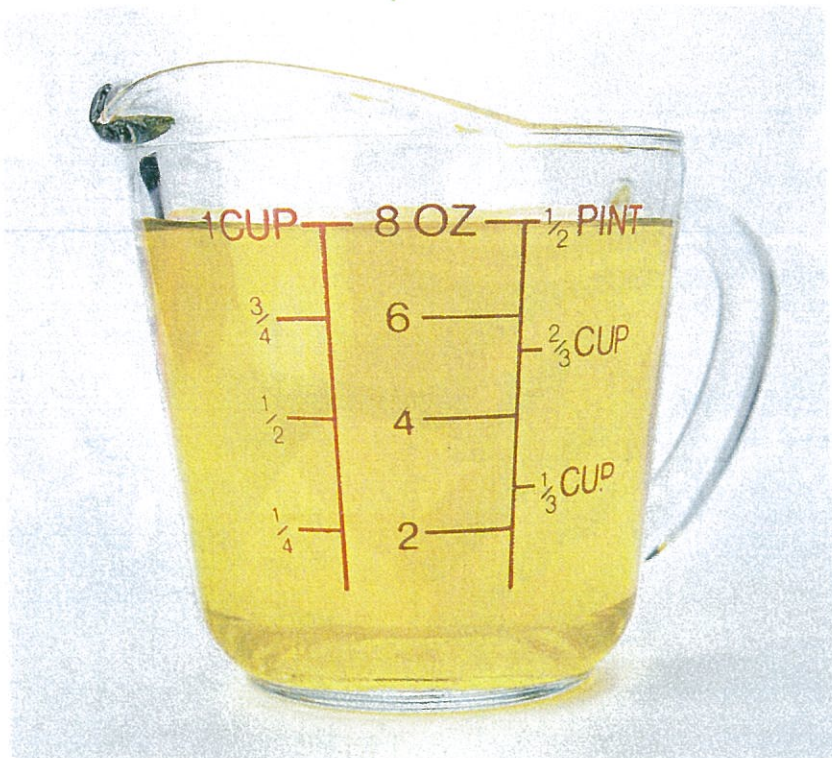
FIGURE 5-2

Reading a Clear Measuring Cup

Read a glass measuring cup on a flat surface. Read with the mark at eye level.

DRAWING CONCLUSIONS Why do you think volume measurements may be less accurate than weight measurements?

Source: Pearson Education



Volume Measurements

Volume Measure	Metric Equivalent*	U.S. Equivalent*
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U.S. SYSTEM

1 teaspoon (tsp)	5 mL	1/6 fl oz
1 tablespoon (Tbsp)	15 mL	1/2 fl oz or 3 tsp
1 fluid ounce (fl oz)	30 mL	2 Tbsp or 6 tsp
1 cup	< 1/4 L	8 fl oz or 16 Tbsp
1 pint (pt)	< 1/2 L	2 cups or 16 fl oz
1 quart (qt)	< 1 L	2 pt or 32 fl oz
1 gallon (gal)	> 3 3/4 L	4 qt or 128 fl oz

METRIC SYSTEM

1 milliliter (mL)	1 mL	1/6 tsp or 0.0338 fl oz
1/4 liter	250 mL	8.5 fl oz or > 1 cup
1 liter (L)	1000 mL	1.1 qt

*U.S./metric conversions are approximate. 1 fl oz = 29.58 mL.

Weight Measurements

Weight Measure	Metric Equivalent*	U.S. Equivalent*
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U.S. SYSTEM

1 ounce (oz)	28 g	
1/4 pound	112 g	4 oz
1/2 pound	224 g	8 oz
3/4 pound	336 g	12 oz
1 pound (lb)	454 g	16 oz

METRIC SYSTEM

1 milligram (mg)	0.001 g	
1 gram (g)	1 g	
1/8 kilogram	125 g	4.4 oz or > 1/4 lb
1/4 kilogram	250 g	8.8 oz or > 1/2 lb
1/2 kilogram	500 g	17.6 oz or > 1 lb
1 kilogram (kg)	1000 g	2.2 lb

*U.S./metric conversions are approximate. 1 oz = 28.35 g.

FOCUS ON Sanitation

Measuring Up

To avoid cross-contamination, clean and sanitize measuring tools between uses. Never let food come in direct contact with the scale. Always use a food tray, a container, a paper barrier, or plastic wrap on the scale.

(Tbsp), and cups (c). These units are also volume measurements. In the metric system, volume is measured in terms of milliliters (mL) and liters (L).

In the U.S. system, weight is measured in terms of ounces (oz) and pounds (lb). In the metric system, weight is measured in terms of milligrams (mg), grams (g), and kilograms (kg).

Some recipes indicate quantities with simplistic abbreviations. For example, 1 teaspoon may appear as 1 tsp or simply 1 t. One tablespoon may appear as 1 Tbsp or 1 T. One cup may appear as 1 c. One gallon may appear as 1 gal or 1 G.



READING CHECKPOINT

About how many grams are in a $\frac{1}{4}$ -pound hamburger patty?
About what fraction of a kilogram is a 1-pound loaf of bread?

Measuring Techniques

Use these techniques when measuring to ensure accuracy.

- **Dry Volume.** Overfill the measuring container and scrape off any excess. Some recipes call for packing (compressing) ingredients such as brown sugar or leafy greens.

- **Liquid Volume.** Set a clear measuring cup or other clear container on a flat surface. Reading with your eye at the level of the mark, fill to the mark.
- **Weight.** Choose a scale that suits the size of your food. Some scales are best for measuring ounces, others for pounds.

When using a food scale, be sure to account for the **tare weight**, the weight of the container holding the food. Place the container on the scale and reset the scale to zero. If your scale cannot be reset, note the tare and subtract it after weighing the food.

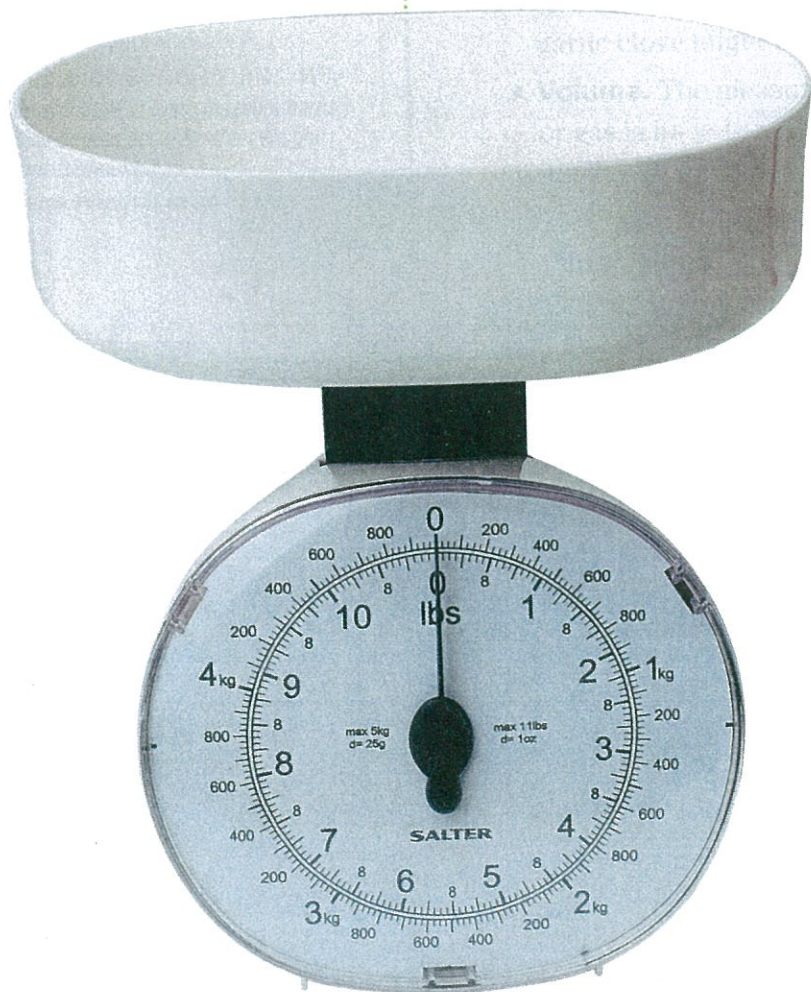


FIGURE 5-3

Using Scales

Scales usually display weight by using the U.S. system or the metric system.

PREDICTING When might it be helpful to be able to display both weight systems?

Source: Andy Crawford/Dorling Kindersley

Measuring Techniques



Measurement	Technique	Tools
Dry volume	<ol style="list-style-type: none"> 1. Overfill container. 2. Scrape off excess. 	Measuring cups, measuring spoons
Liquid volume	<ol style="list-style-type: none"> 1. Set container on flat surface. 2. Fill to correct mark. 3. Inspect with eye level at mark. 4. Adjust as needed. 	Graduated containers, measuring cups, measuring spoons
Weight	<ol style="list-style-type: none"> 1. Set the tare. 2. Place food in container on scale. 3. Read weight and add or remove food. 	Scale, food trays or containers to hold food on scale



READING
CHECKPOINT

How would you measure $\frac{1}{2}$ cup of flour? $\frac{1}{2}$ pound of flour?

5.1 ASSESSMENT

Reviewing Concepts

1. What is a recipe category? Give three examples of recipe categories.
2. What are the benefits of organizing recipes into categories?
3. What sections appear in most standardized recipes?
4. What are the steps in the PRN method for reading recipes?
5. How many quarts are in a gallon? Pints in a quart? Cups in a pint? Fluid ounces in a cup?
6. What is tare weight and why is it important in weighing ingredients for a standardized recipe?

Critical Thinking

7. **Classifying** List two foods that fit in more than one recipe category, and list the categories.
8. **Inferring** Explain how standardized recipes encourage efficient purchasing and preparation.
9. **Solving Problems** About how many liters are in a gallon?

Test Kitchen

Working in groups, record both the metric and U.S. weights of $\frac{1}{4}$ cup of each of the following: flour, white sugar, peanuts, popcorn, cooked white rice, dry white rice, water, fruit juice, and honey. Discuss the differences in weight between identical volume measurements. Discuss any differences in recorded weights by different groups.

LANGUAGE ARTS

Writing a Standardized Recipe

Write a standardized recipe for a simple dish you know how to prepare. Include all the sections that typically are used in a standardized recipe and as many other sections as you can.