

GRAB AND GO LESSON

Understanding Measurements for Food Preparation

Nutrition and Meal Management

Purpose: This handout provides an overview of four types of kitchen measuring tools and techniques for measuring liquid and dry ingredients.

Have you ever wondered why a recipe did not turn out the way you thought it would? Using the proper measuring tools and good measuring techniques can help your recipes be consistent every time they are prepared. Knowing the four types of measuring tools commonly used and some simple techniques for measuring ingredients is a great way to prepare nutritious meals and snacks.

Measuring Tools

Graduated nested measuring spoons are used for measuring small amounts of liquid and dry ingredients. They usually consist of four metal or plastic spoons that include $\frac{1}{4}$ teaspoon, $\frac{1}{2}$ teaspoon, 1 teaspoon, and 1 tablespoon. Other sets are available that will include other measures, such as $\frac{1}{8}$ teaspoon or $\frac{1}{2}$ tablespoon.

It may be helpful to have two sets – one for wet ingredients and one for dry ingredients— since many recipes include both. If you do not have two sets, measure dry ingredients first, then wet ingredients.

Graduated nested measuring cups are used for measuring dry ingredients. Measuring cups usually consist of four metal or plastic cups that include $\frac{1}{4}$ cup, $\frac{1}{3}$ cup, $\frac{1}{2}$ cup, and 1 cup. Other sets are available that will include other measures, such as $\frac{2}{3}$ cup or 2 cups.

Measuring cups do not have a rim and are used for measuring dry ingredients such as flour, sugar, oatmeal, etc. By not having a rim, the ingredients being measured can be leveled with the straight edge of a knife or metal spatula.

Clear measuring cups are used for measuring liquid ingredients. They have a handle for pouring liquids and a spout that helps prevent spilling. Clear measuring cups are either glass or plastic and come in various sizes, such as 1 cup, 2 cups, 4 cups, and 8 cups. Graduated measures are marked on the side of the cup.

Kitchen scales are used for measuring ingredients by weight rather than volume. While most American recipes use volume measurements, some recipes for quantity cooking use weight measurements instead. Weight measurements are more accurate than volume measurements, especially when large quantities of ingredients are involved. For these recipes, you will need to use a kitchen scale.

The two main types of scales are spring scales and electronic scales. Spring scales have a dial that is either fixed or adjustable. Electronic scales have a digital readout, and the units of measure can be changed by flipping a switch.

Measuring Techniques

There are different techniques for measuring different types of ingredients. Avoid measuring ingredients in your mixing bowl; measure them over the sink, in another bowl, or on a sheet of wax paper. Spillage caught on clean wax paper, or another clean bowl can be returned to that ingredient's container to limit food waste.

GRAB AND GO LESSON

Understanding Measurements for Food Preparation

Nutrition and Meal Management

Tips for measuring liquid ingredients:

- Measure small quantities of thin liquids, such as vanilla extract, by carefully pouring the liquid into a measuring spoon. A slight dome should be visible.
- Measure small quantities of thick liquids, such as molasses, by pouring the liquid into the measuring spoon. Then level the liquid with the flat edge of a knife or metal spatula.
- Measure $\frac{1}{4}$ cup or more of liquid ingredients with a clear measuring cup. Place the cup on a level surface and carefully pour the liquid to the correct measurements on the cup. The liquid in the cup will have a slightly curved appearance. Measure the desired amount at the bottom of the curve for the greatest accuracy. Be sure to read the measurements at eye level.

Tips for measuring dry ingredients:

- Measure flour by gently scooping the flour into the spoon or cup, and then level with a straight spatula or knife. Do not pack flour into the dry measuring spoon or cup, as you will end up with too much flour.
- Granulated sugar may have clumps, sift before measuring if necessary. Then, pour or scoop the sugar into the dry measuring spoon or cup until it is overfilled and level with a straight spatula or knife.
- Measure dry ingredients such as cereal, breadcrumbs, or cornmeal by pouring or scooping into the dry measuring spoon or cup until overflowing—level with a straight spatula or knife.
- Measure slightly sticky dry ingredients, such as coconut, shredded cheese, and dried fruit, by gently packing into the dry measuring spoon or cup until level. Nuts should be measured the same way.
- Measure brown sugar and solid fats by spooning into the dry measuring spoon or cup and firmly packing until level. When measured properly, the ingredient should keep the shape of the measuring tool when removed. Stick butter and margarine sometimes have measurements marked on their wrappers. Simply cut off the desired amount you need.

References

- Iowa State University Extension. (2019, September). *Recipe basics: Measure accurately, substitute wisely, adjust carefully*. <https://store.extension.iastate.edu/product/12944>
- Strecker, Sara Jane. (2002). *Kitchen math and measuring*. <http://www.sevastopol.k12.wi.us/common/pages/DisplayFile.aspx?itemId=5031401>
- University of Kentucky Cooperative Extension. (2015). *Measuring savvy*. <https://fcs-hes.ca.uky.edu/sites/fcs-hes.ca.uky.edu/files/fn-ssb-905.pdf>

This project was funded using U.S. Department of Agriculture grant funds. The USDA is an equal opportunity provider, employer, and lender.

The University of Mississippi is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA employer.

For more information and the nondiscrimination statement in other languages:
<https://www.fns.usda.gov/cr/fns-nondiscrimination-statement>

Except as provided below, you may freely use the text and information contained in this document for non-profit or educational use with no cost to the participant for the training providing the following credit is included. These materials may not be incorporated into other websites or textbooks and may not be sold.

Suggested Reference Citation:
Institute of Child Nutrition. (2021). *Grab and go lesson: Understanding measurements for food preparation*. University, MS: Author.

The photographs and images in this document may be owned by third parties and used by the University of Mississippi under a licensing agreement. The University cannot, therefore, grant permission to use these images. Please contact helpdesk@theicn.org for more information.