

Baking for One, Two or a Few

Creating and adapting recipes for quality, tasty baked goods can be fun, challenging and rewarding. Baking is a science. Each ingredient plays a specific role. Less than satisfactory results can occur when the formula is not exact. Be aware that making a recipe that yields fewer servings may not save money or time, in fact, ingredients may be wasted. Additionally, the preparation and baking time may not be reduced and dishes will still have to be washed.

Some ingredients do not conveniently come in portions suitable for small yield recipes. Therefore, adapting recipes for smaller yields may take putting on a scientist's hat and experimenting. But, know that once the perfect end product has been achieved there will be many happy baking experiences in the future.



Basic Equipment

Smaller recipes mean using smaller, and sometimes even less, equipment. Consider keeping the following supplies on hand.

Mixing Bowls: Choose one that is deeper than it is wide. A few small dishes or bowls are useful for measuring small amounts or combining dry ingredients.

Mixer: A hand-held mixer works well for many small-yield recipes. Often these recipes may be mixed by hand using a rubber scraper, spoon, fork or wire whisk.

Baking Pans: A rimmed baking sheet is handy to have. When baking in a countertop or toaster oven, be sure the pans fit into the oven. Mini or petite loaf pans, individual ramekins and a 6-well muffin pan are useful.

Kitchen Gadgets:

- Good rubber scrapers or spatulas. Consider purchasing silicone scrapers that are heat tolerant.
- A hand-held can opener will not take up valuable counter space.
- Liquid measuring cups. Choose ones that are microwave safe for multipurpose use.
- A basic kitchen scale may be valuable for recipe adaptations.
- Ice cube trays may be used to freeze small, known quantities of ingredients including broths, milks and whole blended eggs.
- Pour a known amount of the food into the ice cube tray, freeze the item until hard and place the frozen cubes in a freezer-safe container. Label the container with the product name, date and amount in each frozen cube. Safely thaw the products prior to use.
- Dry ingredient measuring cups including a $\frac{1}{8}$ cup measure if possible.
- Measuring spoons that include a $\frac{1}{8}$ teaspoon option are useful.

Baking for Many.. Eating for One

While this publication focuses on baking small-yield recipes, there is another option. That option: bake a regular batch and either save it or share it with others. By preparing an entire recipe it won't be necessary to think about what to do with half an egg or part of another fresh ingredient. Baking in larger amounts means fewer times to do the dishes. However, the fun of having a variety of products may be lost. Many baked goods actually freeze quite well; unfrosted cakes, quick breads, yeast breads and some pies. When preparing these products for the freezer, divide them into the desired serving sizes and carefully wrap them in plastic wrap and aluminum foil. Avoid freezer burn by properly wrapping so air exposure is limited. Label and date the item and plan to use within a few months for the best quality.

Understanding Recipes

Well-written recipes list the ingredients in the order of use. It is important to know how to measure the ingredients and to measure them accurately. “One cup of walnuts, chopped” is not the same as “one cup of chopped walnuts.” The first requires measuring the walnuts, then chopping. The second requires chopping the walnuts and then measuring.

- For small-yield recipes it also is very important to scrape measuring utensils to remove as much product as possible.
- Brown sugar should always be

packed into the measuring utensil, unless the recipe directs otherwise.

- Shortening, butter, margarine and lard are packed into the measuring utensil to ensure there are no air holes or spaces that would give an inaccurate measurement.
- Flour does not usually need to be sifted unless the recipe calls for it. Flour and most dry ingredients should be spooned lightly into a dry measuring utensil and leveled with a flat edge.

Ingredient Challenges

When baking for one, some ingredients just don't divide conveniently. Others may be a challenge to use before they spoil. Consider these tips for some of the common ingredients.

Eggs: Eggs may need to be divided by one-half or one-fourth. Fresh eggs can be divided. One half of a large egg equals 1½ to 2 tablespoons. Crack the egg into a small bowl and beat with a fork until it is well blended but not foamy. Allow it to sit until the bubbles are gone. Carefully pour the blended egg into the measuring utensil. Any unused egg may be stored covered, in the refrigerator for no more than two days or may be frozen for later use. Unused blended eggs may be

measured, poured into a freezer safe container, labeled, dated and frozen. Use frozen whole eggs within one year. Frozen fresh blended eggs must be thawed prior to use and should only be used in dishes that are cooked. Frozen eggs and frozen egg substitutes come ready-mixed and easy to measure. Once thawed, they should not be refrozen, and should be used within two days.

Chocolate: While everyone chops food to different sizes, 1 ounce of chocolate equals about 3 to 3½ tablespoons when chopped.

Yeast: A packet of yeast yields about 2¼ teaspoons. Sometimes it is easier to buy a jar of yeast and store it in the freezer to extend its shelf-life. The container

must be tightly sealed between uses. The desired amount can be easily measured from the jar. Yeast stored in the freezer will last indefinitely. It is best to mark the date on the container when it is first opened.

Milk and Buttermilk: It may be challenging to use liquid milk or buttermilk before it spoils. Nonfat dry milk powder and dry buttermilk powder are convenient and ready for use in recipes.

- One tablespoon dry buttermilk powder plus 2 tablespoons water equals 2 tablespoons buttermilk.
- Four tablespoons dry buttermilk powder plus 1 cup water equals 1 cup buttermilk.

Dry milk or buttermilk powder may be added to a recipe along with the other dry ingredients; add the required amount of water for the milk powder as

part of the liquids. Opened containers of dry buttermilk will keep several years in the refrigerator. Unopened, nonfat dry milk powder may be stored in a cool, dry place for up to two years. Once opened it should be used within 3 months.

If liquid milk is preferred, excess amounts may be frozen. An easy way to freeze milk is to pour known amounts into ice cube trays, place the tray in the freezer until the milk turns solid. Then, remove the cubes from the tray and place them in a freezer-safe storage container. Mark the container with the contents and the amount of milk per cube. Frozen milk should be used within three months. Safely thaw the cubes of milk prior to use. Makers of non-dairy milk (soy, almond, etc.) generally do not recommend that their products be frozen.

Pan Equivalents

To determine the volume a pan will hold, fill it to the top with water and then measure the water in a liquid measuring cup. When considering pan size and shape, try to keep the depth of the product in the pan about the same as in the original recipe. When choosing a pan that will provide more depth, the cooking time may have to be increased slightly and the oven temperature decreased slightly. If the pan is shallower, the cooking time may need to be decreased.



The chart on the next page is a general guide to pan size.

Pan-Equivalents

When converting recipes for baked items or casseroles size for the smaller amount of food. The goal is to keep the depth of the product about the same for the smaller-yield recipe as it was in the original recipe. To use this chart, find the size of the pan required for the original recipe. Note the volume the pan will hold. Then, search through the chart to find a volume amount that is for a pan that is sized for the amount of the recipe. When a recipe is decreased by half, the volume of the new pan should be about half of the original. Consider the shape of the pan when making a final selection; it is important to use the proper pan.

Item	Size	Volume
Mini pie pan	3" x 1¼"	¾ cup
Round cake pan	4" x 1¼"	1 cup
Round cake pan	8" x 1½"	4 cups
Round cake pan	8" x 2"	6 cups
Round cake pan	9" x 1½"	6 cups

Round cake pan	9" x 2"	8 cups
Springform pan	6¾" x 2½"	5¾ cups
Springform pan	9" x 2½"	10 cups
Square	8" x 8" x 1½"	6 cups
Square	8" x 8" x 2"	8 cups
Square	9" x 9" x 1½"	8 cups
Square	9" x 9" x 2"	10 cups
Rectangular	11" x 7 x 2"	6 cups
Rectangular	13" x 9" x 2"	14 cups
Mini or petite loaf pan	5¾" x 3⅞"	2 cups
Loaf	8" x 4" x 2½"	4 cups
Loaf	8½" x 4½" x 2½"	6 cups
Loaf	9" x 5" x 3"	8 cups
Mini muffin	1⅞" x 1"	¼ cup
Muffin	1¾" x ¾"	⅙ cups
Muffin	2¾" x 1⅞"	¼ cups
Muffin	3" x 1¼"	⅜ cups
Muffin	3¾" x 1½"	½ cups

Baking Times

When a recipe is changed to yield fewer servings the baking time may need to be decreased. Generally, the baking temperature stays the same. In general, mini-muffins will require 10 to 15 minutes to bake and regular-size muffins need 15 to 28 minutes to bake.

Start by reducing the baking time by half and checking to see if the product is done. If not, add time as needed. Once the baking time is discovered, make a note on the new recipe. Keep an eye on times to decrease the likelihood of burning or overbaking a product.

Adapting Your Own Recipes

Recipes are "scaled" to increase or decrease the number of portions they will yield. Some recipes work well when increased or decreased, others do not. A willingness to experiment is needed. The charts in this publication should

help to decrease (or increase) the yield of a recipe. Remember that rounding may have occurred in the equivalent calculation or when the recipe was first published so the new figures may also need to be rounded up or down.

Cutting a recipe in half or thirds should be a good start toward a quality end product.

Begin by decreasing a recipe yield by half or a third then preparing it to ensure it works properly and provides the appropriate amount. After that is satisfactory, then again decrease the yield by half and determine if the product is still acceptable. It may take several sessions of experimenting to achieve the goal of a high-quality, low-yield recipe. Be sure to write down

everything done along the way to ensure repeat successes.

A more accurate method of scaling recipes for baked goods involves first converting all measurements to weights. While there is greater accuracy, access to a table of standard weights for ingredient measures is necessary. A cup of sugar does not weigh what a cup of flour weighs and, neither weigh the same as a cup of water. As a general rule, the use of measurement tables will give a solid start.

Equivalent Measurements in the United States	
1 tablespoon	3 teaspoons
¼ cup	4 tablespoons
¾ cup	12 tablespoons
1 quart	4 cups or 32 fluid ounces
½ pound	8 ounces
1 cup	16 tablespoons or 8 fluid ounces
⅓ cup	5 tablespoons plus 1 teaspoon
1 pint	2 cups or 16 fluid ounces
1 pound	16 ounces
¼ pound	4 ounces



Dividing Measurements

To use this chart, find the original measure in the left column (original). To find what half of the original amount is, move to the second column ($\frac{1}{2}$) and use that amount. To determine what one-third of the original amount is, move to the third column ($\frac{1}{3}$) and use that amount.

Look at the original recipe's ingredient amounts to determine whether it is more convenient to divide the recipe in half or thirds. Sometimes the math is easier with one choice over the other.

Original	$\frac{1}{2}$	$\frac{1}{3}$
$\frac{1}{8}$ teaspoon	Dash	Dash
$\frac{1}{4}$ teaspoon	$\frac{1}{8}$ teaspoon	Scant $\frac{1}{8}$ teaspoon
$\frac{1}{2}$ teaspoon	$\frac{1}{4}$ teaspoon	Scant $\frac{1}{4}$ teaspoon
1 teaspoon	$\frac{1}{2}$ teaspoon	Generous $\frac{1}{4}$ teaspoon
$1\frac{1}{4}$ teaspoons	$\frac{1}{2}$ teaspoon plus $\frac{1}{8}$ teaspoon	Generous $\frac{1}{4}$ teaspoon
$1\frac{1}{2}$ teaspoons	$\frac{3}{4}$ teaspoon	$\frac{1}{2}$ teaspoon
$1\frac{3}{4}$ teaspoons	$\frac{3}{4}$ teaspoon plus $\frac{1}{8}$ teaspoon	Generous $\frac{1}{2}$ teaspoon
2 teaspoons	1 teaspoon	Generous $\frac{1}{2}$ teaspoon
$2\frac{1}{2}$ teaspoons	$1\frac{1}{4}$ teaspoons	Generous $\frac{3}{4}$ teaspoon
1 tablespoon	$1\frac{1}{2}$ teaspoons	1 teaspoon
$1\frac{1}{2}$ tablespoons	$2\frac{1}{4}$ teaspoons	$1\frac{1}{2}$ teaspoon
2 tablespoons	1 tablespoon	2 teaspoons
3 tablespoons	$4\frac{1}{2}$ teaspoons	1 tablespoon
$\frac{1}{4}$ cup	2 tablespoons	1 tablespoon plus 1 teaspoon (or 4 teaspoons)
$\frac{1}{3}$ cup	2 tablespoons plus 2 teaspoons	1 tablespoon plus $2\frac{1}{4}$ teaspoons
$\frac{1}{2}$ cup	$\frac{1}{4}$ cup	2 tablespoons plus 2 teaspoons
$\frac{2}{3}$ cup	$\frac{1}{3}$ cup	3 tablespoons plus $1\frac{1}{2}$ teaspoons
$\frac{3}{4}$ cup	6 tablespoons ($\frac{1}{4}$ cup plus 2 tablespoons)	$\frac{1}{4}$ cup
1 cup	$\frac{1}{2}$ cup	$\frac{1}{3}$ cup
$1\frac{1}{4}$ cups	$\frac{1}{2}$ cup plus 2 tablespoons	$\frac{1}{3}$ cup plus 1 tablespoon plus 1 teaspoon
$1\frac{1}{3}$ cups	$\frac{1}{2}$ cup plus 2 tablespoons plus 2 teaspoons	$\frac{1}{3}$ cup plus 1 tablespoon plus $2\frac{1}{4}$ teaspoons
$1\frac{1}{2}$ cups	$\frac{3}{4}$ cup	$\frac{1}{2}$ cup
$1\frac{2}{3}$ cups	$\frac{1}{2}$ cup plus $\frac{1}{3}$ cup	$\frac{1}{3}$ cup plus 3 tablespoons plus $1\frac{1}{2}$ teaspoons
$1\frac{3}{4}$ cups	$\frac{3}{4}$ cup plus 2 tablespoons	$\frac{1}{3}$ cup plus $\frac{1}{4}$ cup
2 cups	1 cup	$\frac{2}{3}$ cups

Practice Recipe Reduction

With these basic tools and an understanding of reducing the yield of baked goods, practice with the following recipes. The original recipe is provided with the amounts in the first column. Use the chart on page 7 to easily divide the recipe amounts. Write the measurements for cutting the

recipe in half in the second column. Then, in the last column cut the half into half again. Remember to look through the recipe directions and make needed adjustments to amounts and pan sizes as needed. Refer to the chart of pan sizes on page 5. The answers are provided at the end of this publication.



Cranberry Orange Nut Muffins

Divide the ingredient quantities in half and enter the amount in the 6 muffins column. Then, divide the 6 muffins column amounts in half and enter that figure in the 3 muffins column. There is a chart on page 7 to help divide the ingredients.

Ingredients	12 Muffins	6 Muffins	3 Muffins
Fresh or frozen whole cranberries	1 cup		
White sugar, divided	5 tablespoons		
All-purpose flour	1¾ cups		
Baking powder	2 teaspoons		
Salt	½ teaspoon		
Large egg	1		
Orange juice	½ cup		
Skim milk	¼ cup		
Cooking oil	⅓ cup		
Chopped English walnuts	½ cup		

1. Preheat oven to 400 degrees F. Spray 12 (_____) muffin cups with non-stick cooking spray and set aside.
2. Coarsely chop cranberries and toss with 2 tablespoons (_____) sugar.
3. Combine flour, 2 tablespoons (_____) sugar, baking powder and salt.
4. In a small bowl, beat egg slightly; stir in orange juice, milk and cooking oil.
5. Add egg mixture all at once to the flour mixture. Stir just until moistened (the batter will be lumpy). Gently fold cranberries and chopped nuts into mixture.
6. Fill prepared muffin cups ¾ full. Sprinkle muffin tops with remaining sugar. Bake at 400 degrees F for 18 to 20 minutes or until golden.
7. Remove from cups and serve warm. Leftover muffins may be individually wrapped in plastic wrap, placed in a freezer-safe container and frozen. Thaw before serving.

Serving Size: 1 muffin

Approximate Nutrition Analysis (per muffin): 190 calories; 10 g total fat; 1.5 saturated fat; 0 g trans fat; 15 mg cholesterol; 200 mg sodium; 23 g carbohydrates; 1 g dietary fiber; 3 g protein

Oatmeal Raisin Cookies

Divide the ingredient quantities in half and enter the amount in the 24 cookies column. Then, divide the 24 cookies column amounts in half and enter that figure in the 12 cookies column. Finally, divide the 12 cookie amount in half and write that figure in the 6 cookie column. Use the chart on page 7 to help divide the ingredients.

Ingredients	48 cookies	24 cookies	12 cookies	6 cookies
Shortening	¾ cup			
White sugar	¾ cup			
Brown sugar, packed	¾ cup			
Water	3 tablespoons			
Large egg	1			
Pure vanilla extract	1 teaspoon			
All-purpose flour	1 cup			
Ground cinnamon	2 teaspoons			
Ground cloves	1 teaspoon			
Salt	1 teaspoon			
Raisins	1 cup			
Quick-cooking oats	3 cups			

1. Preheat oven to 350 degrees F.
2. Blend first six ingredients together. Stir in remaining ingredients.
3. Drop dough by rounded spoonful onto an ungreased baking sheet.
4. Bake 12 to 15 minutes in a 350 degrees F oven.
5. Store in an airtight container or freeze.

Serving Size: 1 cookie

Nutritional Analysis (one cookie): 100 calories; 3.5 g total fat; 1 g saturated fat; 0 g trans fat; 5 mg cholesterol; 15 g carbohydrates; 1 g dietary fiber; 1 g protein; 50 mg sodium

Cranberry Orange Nut Muffins – ANSWERS

Divide the ingredient quantities in half and enter the amount in the 6 muffins column. Then, divide the 6 muffins column amounts in half and enter that figure in the 3 muffins column. Use the chart on page 7 to help divide the ingredients.

Ingredients	12 Muffins	6 Muffins	3 Muffins
Fresh or frozen whole cranberries	1 cup	½ cup	¼ cup
White sugar, divided	5 tablespoons	2 tablespoons + 1½ teaspoons	1 tablespoon + ¾ teaspoon
All-purpose flour	1¾ cups	¾ cup + 2 tablespoons	¼ cup + 3 tablespoons
Baking powder	2 teaspoons	1 teaspoon	½ teaspoon
Salt	½ teaspoon	¼ teaspoon	⅛ teaspoon
Large egg	1	½ (2 tablespoons)	1 tablespoon
Orange juice	½ cup	¼ cup	2 tablespoons
Skim milk	¼ cup	2 tablespoons	1 tablespoon
Cooking oil	⅓ cup	2 tablespoons + 2 teaspoons	1 tablespoon + 1 teaspoon
Chopped English walnuts	½ cup	¼ cup	2 tablespoons

1. Preheat oven to 400 degrees F. Spray 12 (6, 3) muffin cups with non-stick cooking spray and set aside.
2. Coarsely chop cranberries and toss with 2 tablespoons (1 tablespoon, 1½ teaspoons) sugar.
3. Combine flour, 2 tablespoons (1 tablespoon, 1½ teaspoons) sugar, baking powder and salt.
4. In a small bowl, beat egg slightly; stir in orange juice, milk and cooking oil.
5. Add egg mixture all at once to the flour mixture. Stir just until moistened (the batter will be lumpy). Gently fold cranberries and chopped nuts into mixture.
6. Fill prepared muffin cups ¾ full. Sprinkle muffin tops with remaining sugar. Bake at 400 degrees F for 18 to 20 minutes or until golden.
7. Remove from cups and serve warm. Leftover muffins may be individually wrapped in plastic wrap, placed in a freezer-safe container and frozen. Thaw before serving.

Serving Size: 1 muffin

Approximate Nutrition Analysis (per muffin): 190 calories; 10 g total fat; 1.5 saturated fat; 0 g trans fat; 15 mg cholesterol; 200 mg sodium; 23 g carbohydrates; 1 g dietary fiber; 3 g protein

Oatmeal Raisin Cookies – ANSWERS

Ingredients	48 cookies	24 cookies	12 cookies	6 cookies
Shortening	$\frac{3}{4}$ cup	$\frac{1}{4}$ cup + 2 tablespoons	3 tablespoons	1 tablespoon + $1\frac{1}{2}$ teaspoons
White sugar	$\frac{3}{4}$ cup	$\frac{1}{4}$ cup + 2 tablespoons	3 tablespoons	1 tablespoon + $1\frac{1}{2}$ teaspoons
Brown sugar, packed	$\frac{3}{4}$ cup	$\frac{1}{4}$ cup + 2 tablespoons	3 tablespoons	1 tablespoon + $1\frac{1}{2}$ teaspoons
Water	3 tablespoons	1 tablespoon + $1\frac{1}{2}$ teaspoons	2 teaspoons	1 teaspoon
Large egg	1	$\frac{1}{2}$ (2 tablespoons)	1 tablespoon	$1\frac{1}{2}$ teaspoons
Pure vanilla extract	1 teaspoon	$\frac{1}{2}$ teaspoon	$\frac{1}{4}$ teaspoon	$\frac{1}{8}$ teaspoon
All-purpose flour	1 cup	$\frac{1}{2}$ cup	$\frac{1}{4}$ cup	2 tablespoons
Ground cinnamon	2 teaspoons	1 teaspoon	$\frac{1}{2}$ teaspoon	$\frac{1}{4}$ teaspoon
Ground cloves	1 teaspoon	$\frac{1}{2}$ teaspoon	$\frac{1}{4}$ teaspoon	$\frac{1}{8}$ teaspoon
Salt	1 teaspoon	$\frac{1}{2}$ teaspoon	$\frac{1}{4}$ teaspoon	$\frac{1}{8}$ teaspoon
Raisins	1 cup	$\frac{1}{2}$ cup	$\frac{1}{4}$ cup	2 tablespoons
Quick-Cooking Oats	3 cups	$1\frac{1}{2}$ cups	$\frac{3}{4}$ cup	6 tablespoons

1. Preheat oven to 350 degrees F.
2. Blend first six ingredients together. Stir in remaining ingredients.
3. Drop dough by rounded spoonful onto an ungreased baking sheet.
4. Bake 12 to 15 minutes in a 350 degrees F oven.
5. Store in an airtight container or freeze.

Serving Size: 1 cookie

Approximate Nutritional Analysis (one cookie): 100 calories; 3.5 g total fat; 1 g saturated fat; 0 g trans fat; 5 mg cholesterol; 15 g carbohydrates; 1 g dietary fiber; 1 g protein; 50 mg sodium

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