Using Standardized Recipes

South Dakota Department of Education
Child & Adult Nutrition Services

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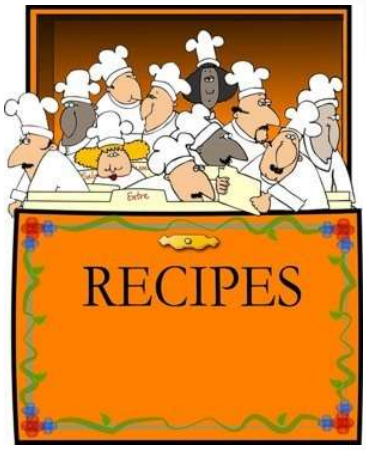
Welcome to the SD Child and Adult Nutrition Services webinar on Using Standardized Recipes.

Standardized Recipes

Required by program regulation for any recipe with more than one ingredient.



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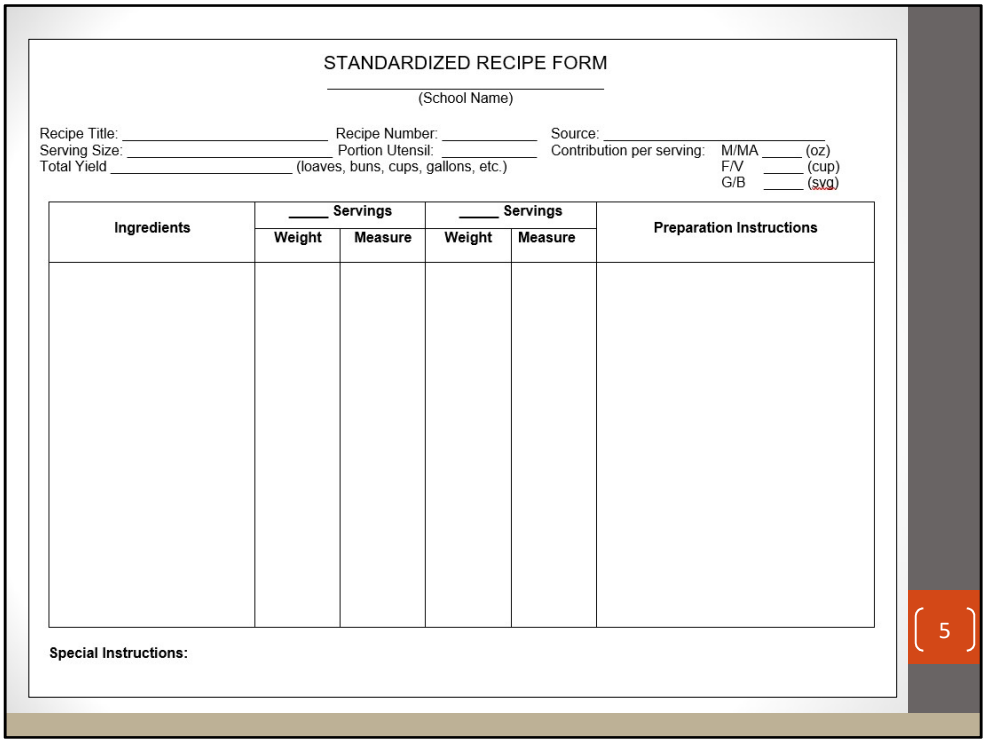
Standardized recipes are required by program regulation for any recipe with more than one ingredient. We will go into benefits and reasoning for recipes on the coming slide.

Here is a brief overview of standardized recipes' benefits:

- They provide **Consistent food quality** by ensuring that menu items are consistent
- The planned number of servings will be produced when using standardized recipes. The benefit of having a **predictable yield** also helps to reduce leftover food and prevent shortages
- They increase **Customer satisfaction.** Well-developed recipes that appeal to students are an important factor in maintaining and increasing student participation levels
- **Consistent nutrient content** is another benefit of standardized recipes. It ensures that nutritional values per serving are valid and consistent
- Standardized recipes provide consistent and accurate information for **food cost control** as well.

We will discuss few more benefits on the following slide.

- Standardized recipes make **purchasing procedures efficient.** This is because the quantity of food needed for production is easily calculated from the information on each standardized recipe.
- **Control of inventory** is another benefit because standardized recipes provide predictable information on the quantity of food used each time the recipe is produced.
- The written standardized procedures in the recipe make efficient use of labor time and allow for planned scheduling of foodservice personnel for the work day. Training costs are reduced because new employees are provided specific instructions for preparation in each recipe. These reasons show that **labor cost control** is another benefit of standardized recipes.
- **Increased employee confidence** is gained from standardized recipes by eliminating staff guesswork, decreases the chance for producing poor products, and prevents shortages of food during meal service.
- Standardized recipes also help **State and Federal reviews to be completed successfully** because standardized recipes are a source of documentation for the Nutrient Analysis. Nutrient Analysis determines how well schools are meeting the nutrition standards set by USDA, and a review cannot be completed if the recipes are missing information or if inaccurate information is provided on ingredients, yield, or serving size.



STANDARDIZED RECIPE FORM

_____
(School Name)

Recipe Title: _____ Recipe Number: _____ Source: _____
Serving Size: _____ Portion Utensil: _____ Contribution per serving: M/MA _____ (oz)
Total Yield _____ (loaves, buns, cups, gallons, etc.) F/V _____ (cup)
G/B _____ (svg)

Ingredients	_____ Servings		_____ Servings		Preparation Instructions
	Weight	Measure	Weight	Measure	

Special Instructions:

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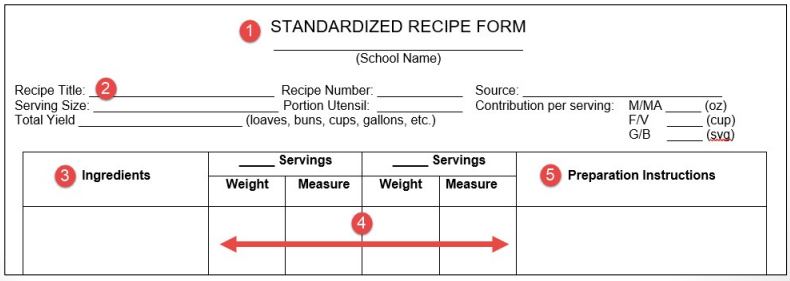
This is the state prototype form for standardized recipes. You may use another form, but it needs to contain all the information that is on this form.
This form can be found on the DOE-CANS Numbered Memos webpage.
Once on the CANS page, scroll down to the numbered memos link in the 'Documents' section.
In the numbered memos, scroll down to SNP Memo 235-1.
In this section, you can access a blank Standardized Recipe Form, but there are also examples of the form and recipe analysis information.

Let's take a look at some of the components of a USDA recipe.

Standardized Recipe Components

1. School/Agency Name
2. Recipe Title
3. Ingredients
4. Weight/Volume Measures of Ingredients for 50 Servings & 100 Servings
5. Preparation Instructions/Directions



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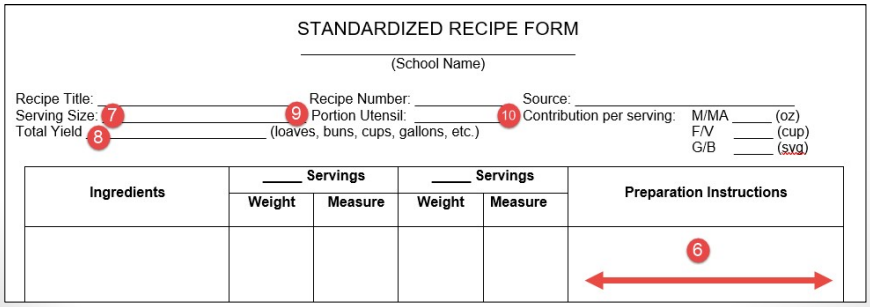
Standardized recipes for school food service operations should always have certain components including:
the School/Agency Name, the Recipe Title, Ingredients, the Weight or Volume Measures of Ingredients for 50 Servings & 100 Servings, and the Preparation Instructions or Directions.

We will take a look at a few more components of a standardized recipe on the next slide.

Standardized Recipe Components

6. Cooking Temperature and Time
7. Serving Size
8. Recipe Yield
9. Equipment and Utensils to be Used
10. Component Contributions



STANDARDIZED RECIPE FORM

(School Name)

Recipe Title: _____ Recipe Number: _____ Source: _____

Serving Size: 7 _____ 9 Portion Utensil: _____ 10 Contribution per serving: M/MA _____ (oz)

Total Yield 8 _____ (loaves, buns, cups, gallons, etc.) F/V _____ (cup)

G/B _____ (svg)

Ingredients	____ Servings		____ Servings		Preparation Instructions
	Weight	Measure	Weight	Measure	
					6

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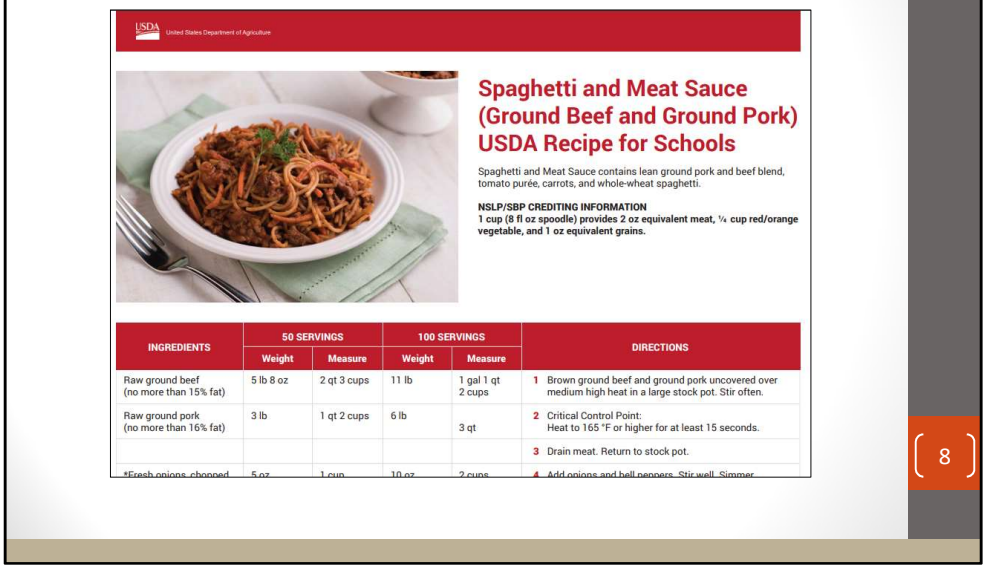
Standardized recipes must also include the Cooking Time and Temperature, Serving Size, Recipe Yield, the Equipment and Utensils to be Used, and the Component Contributions.

https://theicn.org/cnrb/recipes-for-schools/



USDA United States Department of Agriculture

Spaghetti and Meat Sauce (Ground Beef and Ground Pork) USDA Recipe for Schools

Spaghetti and Meat Sauce contains lean ground pork and beef blend, tomato purée, carrots, and whole-wheat spaghetti.

NSLP/SBP CREDITING INFORMATION
1 cup (8 fl oz spoodle) provides 2 oz equivalent meat, ¼ cup red/orange vegetable, and 1 oz equivalent grains.

INGREDIENTS	50 SERVINGS		100 SERVINGS		DIRECTIONS
	Weight	Measure	Weight	Measure	
Raw ground beef (no more than 15% fat)	5 lb 8 oz	2 qt 3 cups	11 lb	1 gal 1 qt 2 cups	1 Brown ground beef and ground pork uncovered over medium high heat in a large stock pot. Stir often.
Raw ground pork (no more than 16% fat)	3 lb	1 qt 2 cups	6 lb	3 qt	2 Critical Control Point: Heat to 165 °F or higher for at least 15 seconds.
					3 Drain meat. Return to stock pot.
*Fresh onions, chopped	5 oz	1 cup	10 oz	2 cups	4 Add onions and bell peppers. Stir well. Simmer

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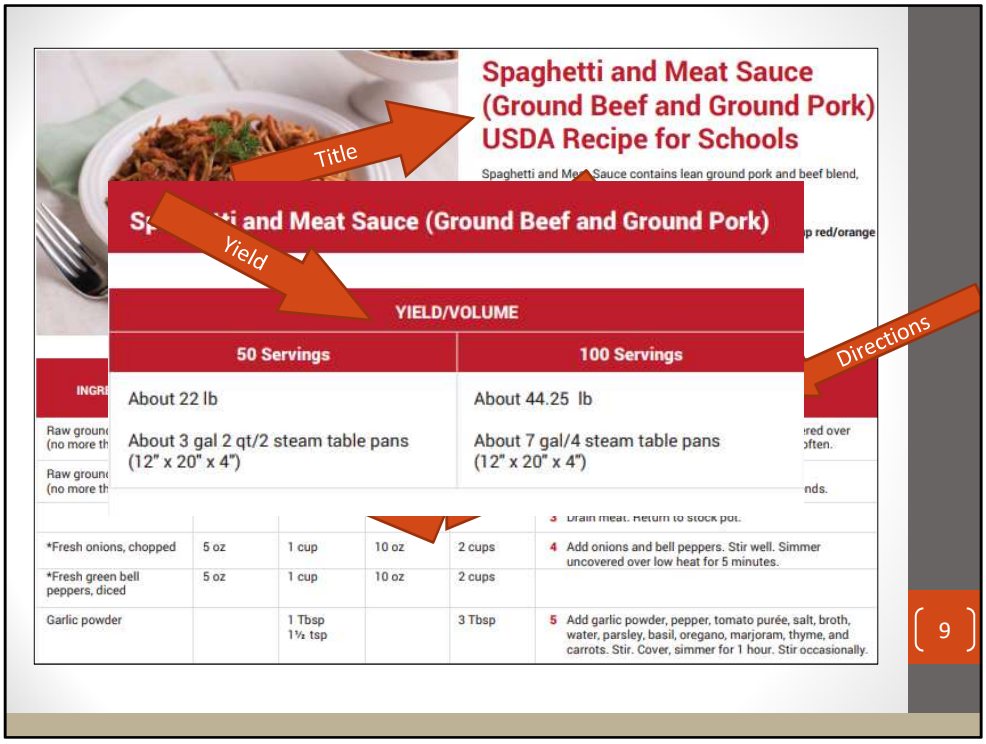
For an example, we will use the USDA Recipe of Spaghetti and Meat Sauce. Just a quick note: a simple internet search of the term ‘USDA Recipes’ will produce search results which will provide an alphabetical list of USDA recipes. You can also find the Child Nutrition Recipe Box on the icn.org website. These USDA recipes feature pre-determined component crediting. Please note that if you print recipes from ICN, you do not have to convert them to the CANS form. We provide you the form in case you want to create your own recipes.



The following standardized recipes components are indicated on this slide by each arrow:
click
Recipe Title

click
Ingredients

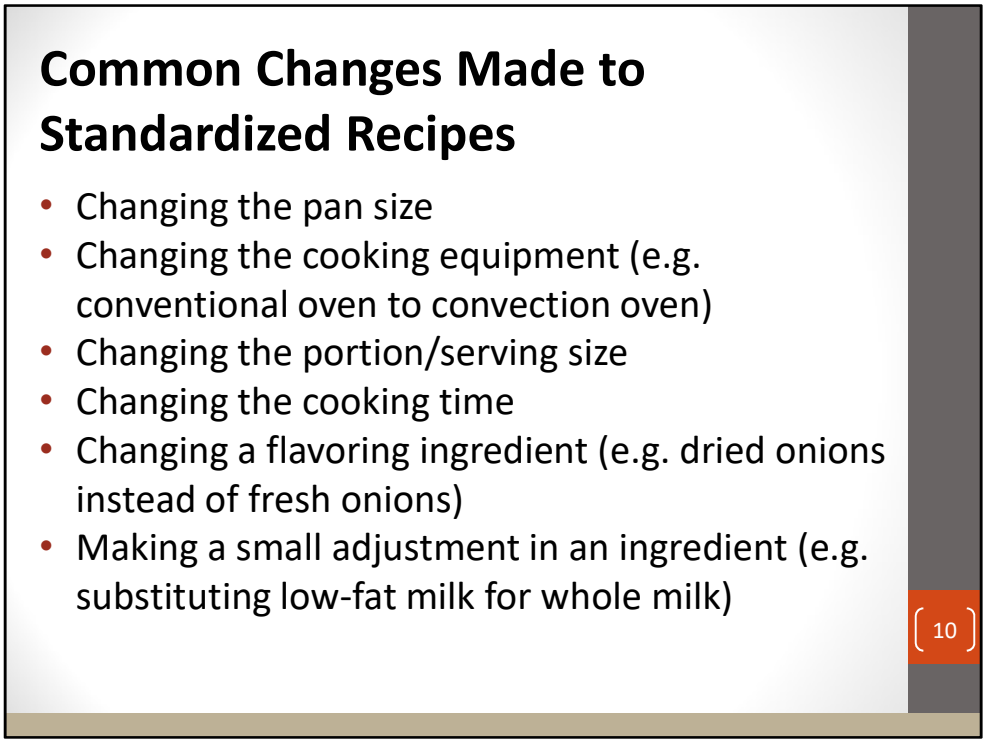
click
Weight/Volume Measures of Ingredients for 50 Servings and 100 Servings

click
Preparation Instructions/Directions

click
Cooking Time and Temperature; this is one part of the recipe-there are probably more time & temp instructions throughout the recipe

click
Serving Size & Crediting

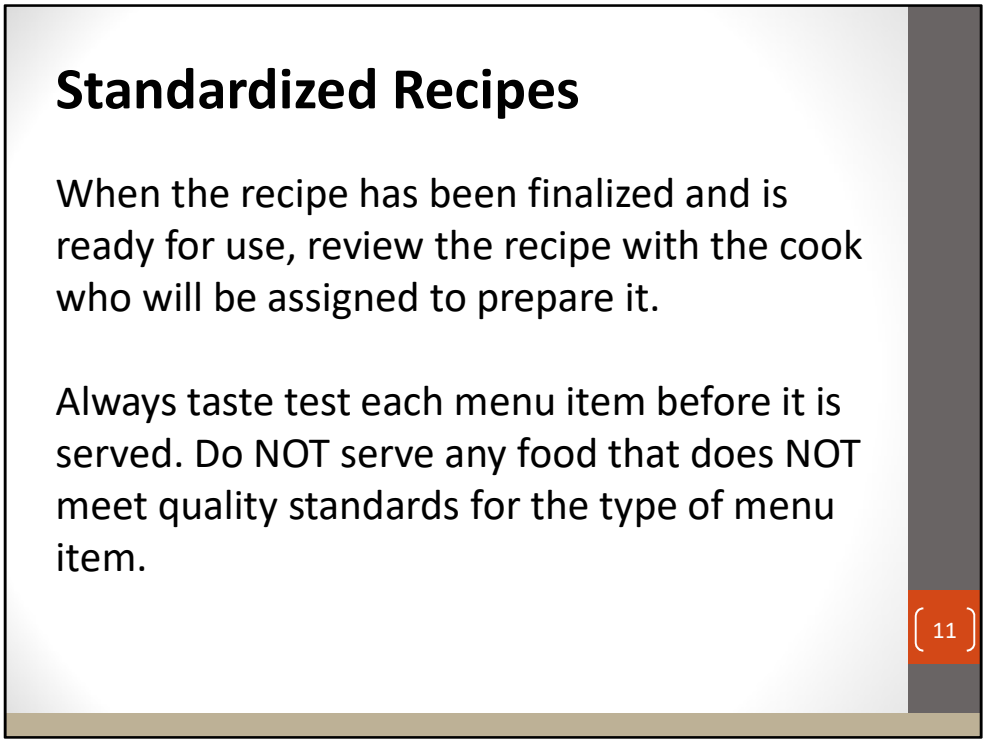
Recipe Yield can be found on page 3 of this recipe
click, click



Here are some ideas on how to standardize a recipe. You have probably already done these but just didn't think of it as standardizing. Once you've made the recipe, determine if you need to make any adjustments and record those on the recipe.

Some things that you may need to adjust are:

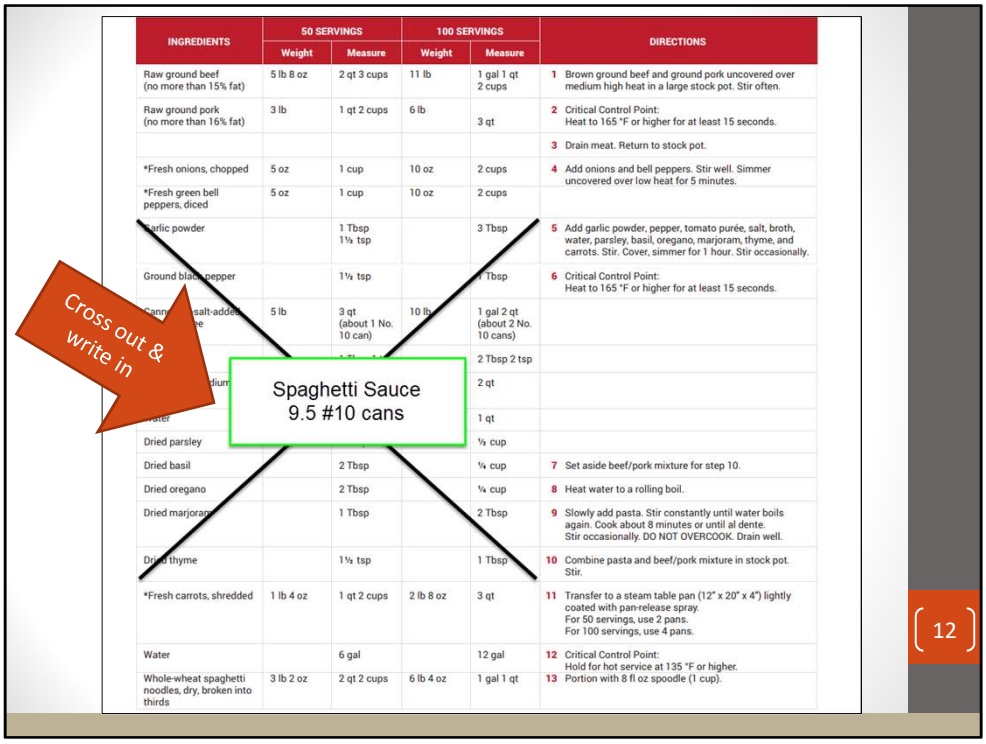
- Changing the pan size
- Changing the cooking equipment; for example, changing from a conventional oven to convection oven
- Changing the portion or serving size
- Changing the cooking time
- Changing a flavoring ingredient; for example, using dried onions instead of fresh onions, OR
- Making a small adjustment in an ingredient; for example, substituting low-fat milk for whole milk



A couple of good reminders include always reviewing recipes with the cooks who will be preparing them and conducting a taste test.

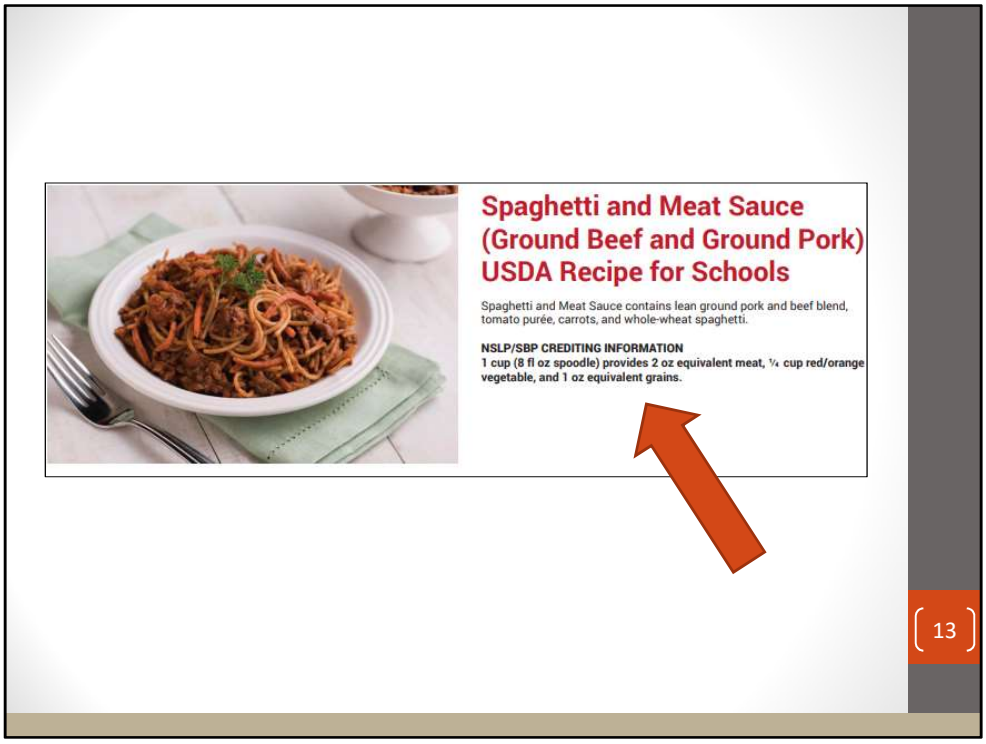
When the recipe has been finalized and is ready for use, review the recipe with the cook who will be assigned to prepare it.

Always taste test each menu item before it is served. Do NOT serve any food that does NOT meet quality standards for the type of menu item.



INGREDIENTS	50 SERVINGS		100 SERVINGS		DIRECTIONS
	Weight	Measure	Weight	Measure	
Raw ground beef (no more than 15% fat)	5 lb 8 oz	2 qt 3 cups	11 lb	1 gal 1 qt 2 cups	1 Brown ground beef and ground pork uncovered over medium high heat in a large stock pot. Stir often.
Raw ground pork (no more than 16% fat)	3 lb	1 qt 2 cups	6 lb	3 qt	2 Critical Control Point: Heat to 165 °F or higher for at least 15 seconds.
					3 Drain meat. Return to stock pot.
*Fresh onions, chopped	5 oz	1 cup	10 oz	2 cups	4 Add onions and bell peppers. Stir well. Simmer uncovered over low heat for 5 minutes.
*Fresh green bell peppers, diced	5 oz	1 cup	10 oz	2 cups	
Garlic powder		1 Tbsp 1¼ tsp		3 Tbsp	5 Add garlic powder, pepper, tomato purée, salt, broth, water, parsley, basil, oregano, marjoram, thyme, and carrots. Stir. Cover, simmer for 1 hour. Stir occasionally.
Ground black pepper		1⅓ tsp		1 Tbsp	6 Critical Control Point: Heat to 165 °F or higher for at least 15 seconds.
Canned salt-added tomatoes	5 lb	3 qt (about 1 No. 10 can)	10 lb	1 gal 2 qt (about 2 No. 10 cans)	
				2 Tbsp 2 tsp	
				2 qt	
				1 qt	
Dried parsley				½ cup	
Dried basil		2 Tbsp		¼ cup	7 Set aside beef/pork mixture for step 10.
Dried oregano		2 Tbsp		¼ cup	8 Heat water to a rolling boil.
Dried marjoram		1 Tbsp		2 Tbsp	9 Slowly add pasta. Stir constantly until water boils again. Cook about 8 minutes or until al dente. Stir occasionally. DO NOT OVERCOOK. Drain well.
Dried thyme		1⅓ tsp		1 Tbsp	10 Combine pasta and beef/pork mixture in stock pot. Stir.
*Fresh carrots, shredded	1 lb 4 oz	1 qt 2 cups	2 lb 8 oz	3 qt	11 Transfer to a steam table pan (12" x 20" x 4") lightly coated with pan-release spray. For 50 servings, use 2 pans. For 100 servings, use 4 pans.
Water		6 gal		12 gal	12 Critical Control Point: Hold for hot service at 135 °F or higher.
Whole-wheat spaghetti noodles, dry, broken into thirds	3 lb 2 oz	2 qt 2 cups	6 lb 4 oz	1 gal 1 qt	13 Portion with 8 fl oz spoodle (1 cup).

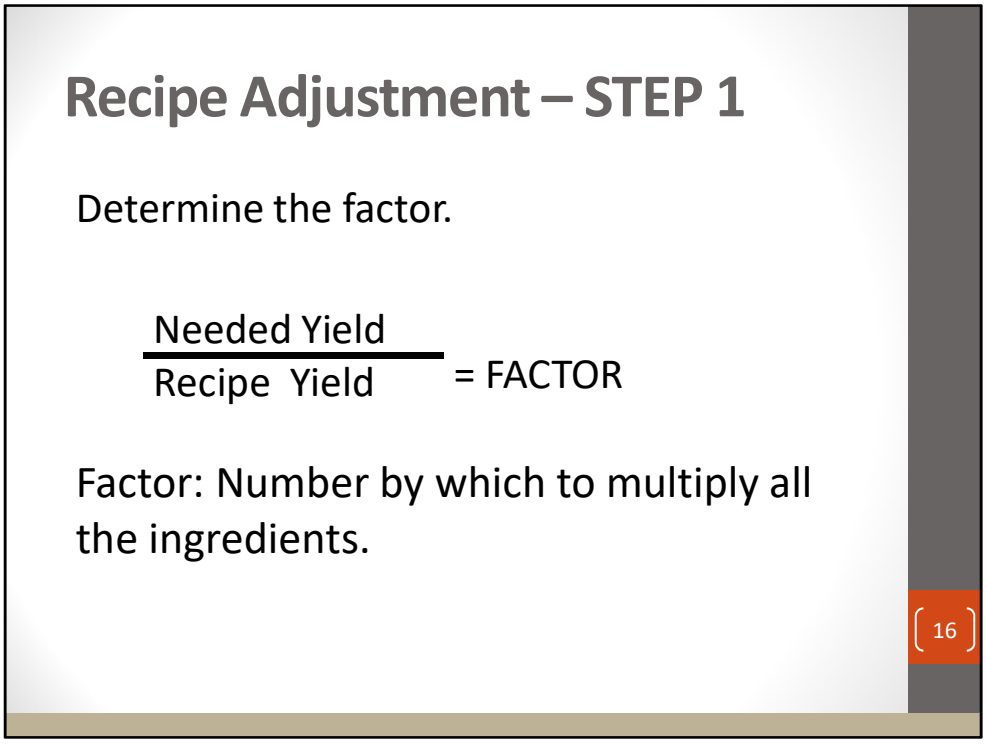
Another easy way to standardize a recipe is to take a recipe, and cross out & write in what you are doing. In this example, you might not want to use tomato sauce with all the added seasonings, but just simply want to use a canned spaghetti sauce. So just cross out and write in what is actually being done. Keep in mind to also update the directions if you are using spaghetti sauce.



Remember: If you change anything in the recipe you must make sure that it does not change the component crediting per serving size. If amounts of crediting ingredients are adjusted, you must update the “Serving” area of the recipe to reflect component crediting changes.

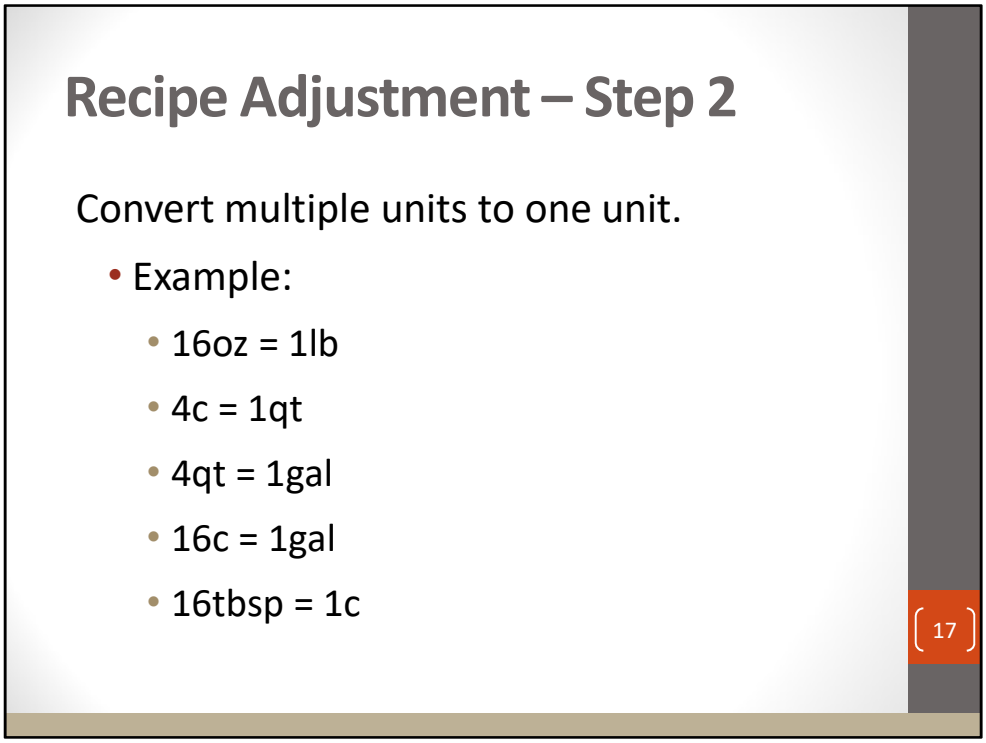
Next, we will discuss the adjusting of recipes. This would be used for when a recipe is already on hand but a different yield is necessary.

We will begin by watching a short video regarding the recipe adjustment.
6 minutes, 8 seconds



As listed in the video, we must use our needed yield and the recipe yield to determine the factor.

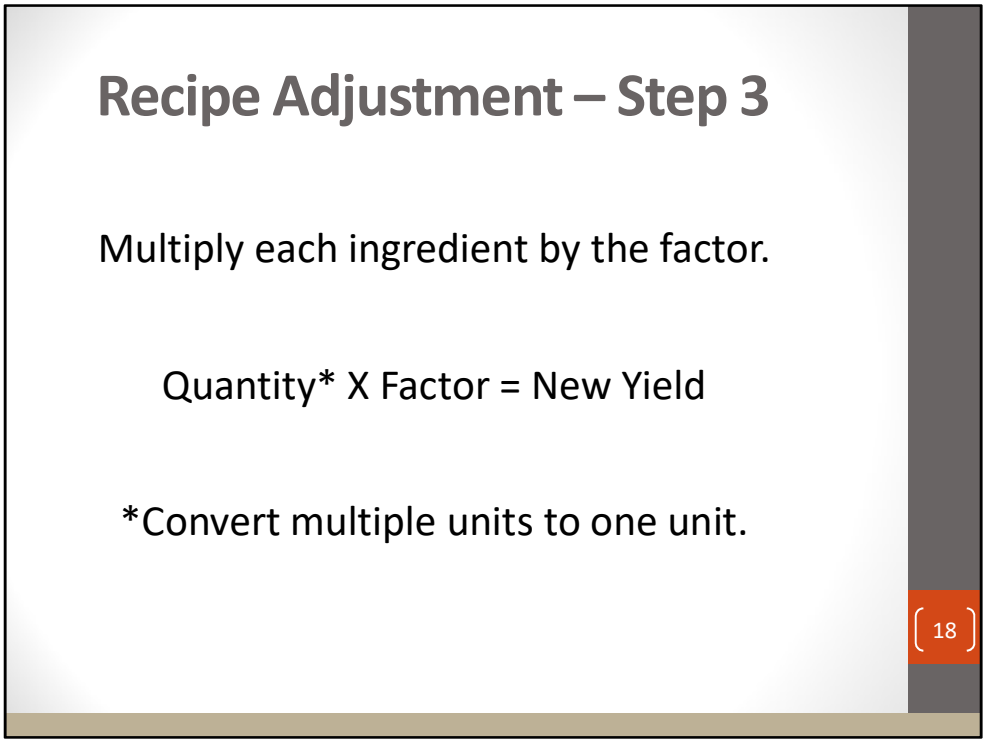
The factor number will be used to multiply all ingredients of the recipe to determine the new amount of ingredients to use. We will provide more examples on this in the coming slides.



After the factor is determined, convert multiple units to one unit.

- For example, if a recipe calls for 1 pound and 4 ounces of ground beef, convert this to 20 ounces.

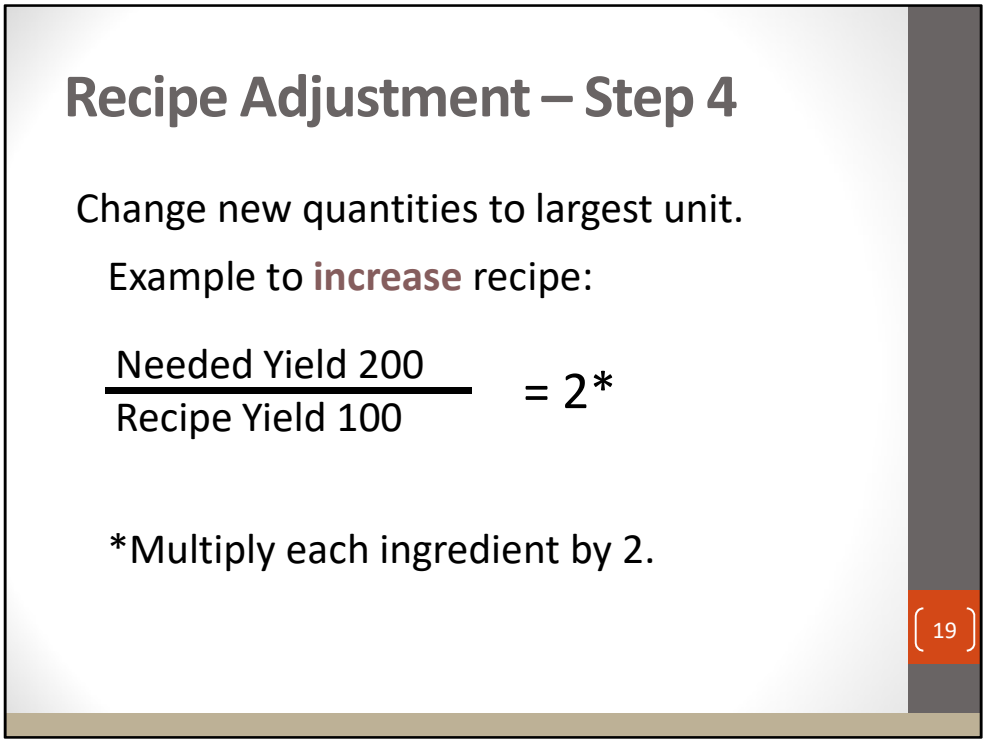
Here are some conversions to remember when changing units into the most manageable unit.



As we recall from the video, the next step is to multiply each ingredient by the factor.

Take the quantity of each ingredient in the recipe times the factor to get the new yield.

*Remember to Convert multiple units to one unit prior to multiplying.



After the new yield has been determined by multiplying the ingredients by the factor, change new quantities into the largest unit.

Here is an example of how you get the factor number. If the recipe yields 100 servings, but you need 200 servings, take 200 divided by 100. This gives us a factor of 2. Multiply each ingredient by the factor of 2, this will increase your yield to 200 servings.

Remember to record the new ingredient amounts on your recipe.

Recipe Adjustment – Step 4

Change new quantities to largest unit.

Example to **decrease** recipe:

$$\frac{\text{Needed Yield } 25}{\text{Recipe Yield } 50} = 0.5^*$$

*Multiply each ingredient by 0.5.

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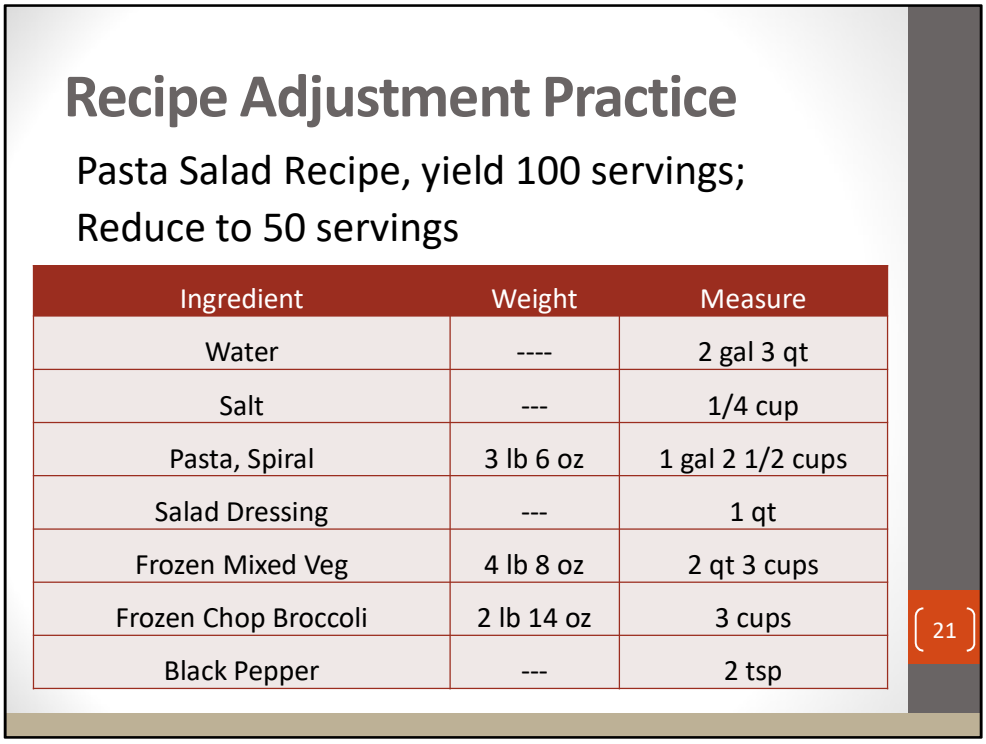
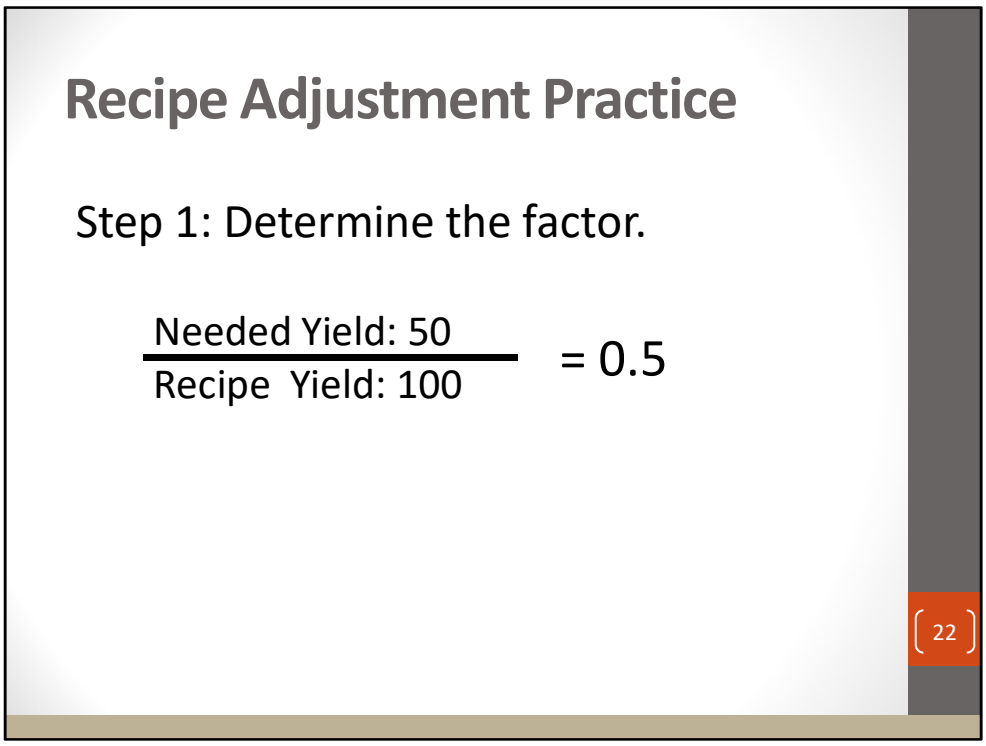
In this example, our recipe would yield 50 servings but we only need 25 servings. Divide 25 by 50. This gives us a factor of 0.5.

Multiply each ingredient in the recipe by 0.5 to determine the new amount of each ingredient. This will decrease your recipe to yield only 25 servings.

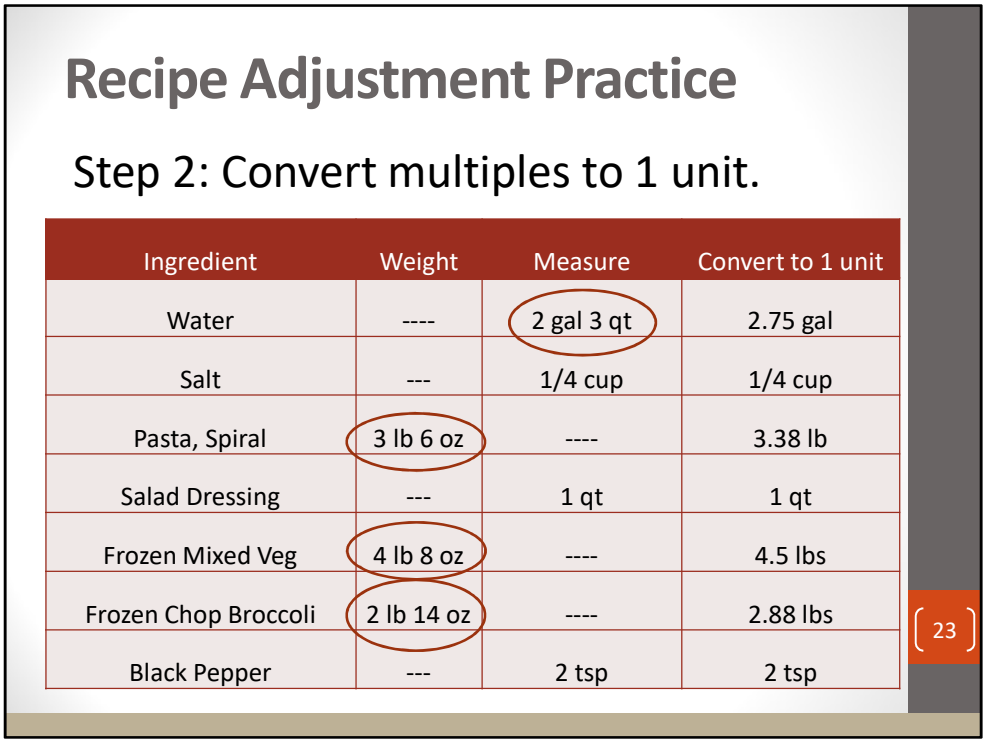


Let's give it a try and practice adjusting this sample recipe.

Here we have a Pasta salad recipe with all ingredients listed, which yields 100 servings. Let's follow the steps together to reduce the recipe for 50 servings.

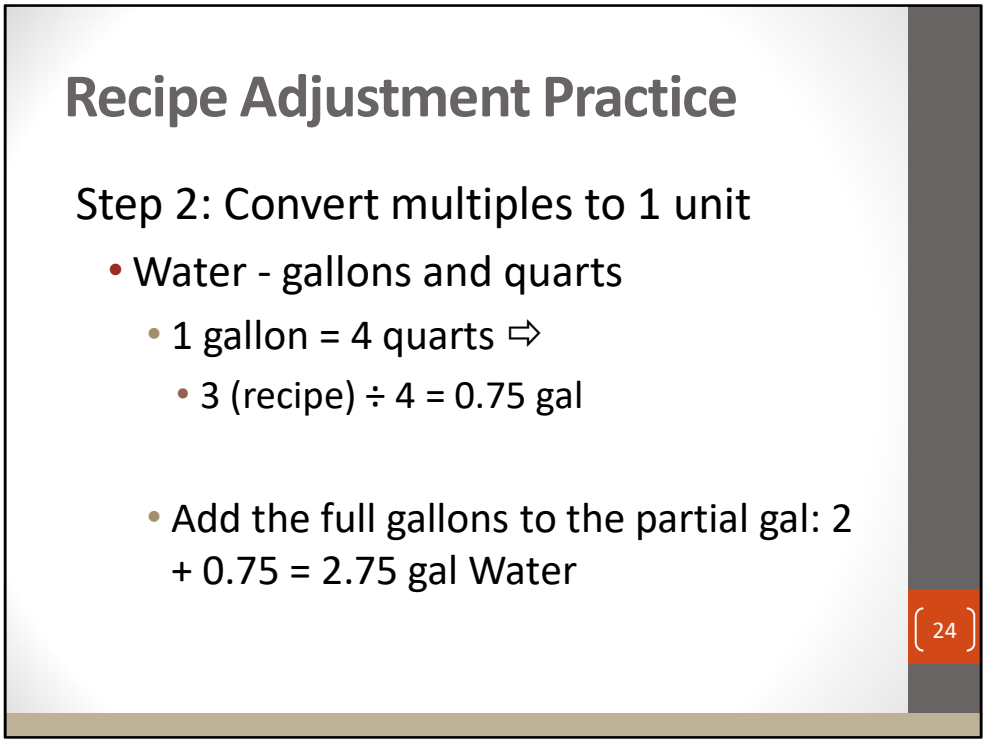


The first step is to determine our factor.
The recipe yields 100 servings, however, we only need 50 servings. Take 50 and divide by 100. This gives us a factor of 0.5



Next, we need to convert to a single unit. You can convert to the smaller unit of measure, as done in the video, or save a step, and convert to the largest unit of measure right now. When converting to the larger unit of measure, you will have a number with a decimal.

We will go into the detail with the math on the coming slide for converting (click) water, (click) pasta, (click) frozen mixed vegetable, and (click) frozen chop broccoli.



For the water, we are trying to get it into gallons.
1 gallon has 4 quarts, so just take the 3 quarts listed in the recipe and divide by 4 quarts.
3 divided by 4 gives us 0.75 gallons.

Add the 2 full gallons to the partial gallon, which gives us 2.75 gallons of water.

Recipe Adjustment Practice

- Let's try that again!
  - Pasta – pounds and ounces
  - 1 pound = 16 ounces ⇨
    - 6 ÷ 16 = 0.375 lbs
  - Add the full pounds to the partial pounds: 3 + 0.375 = 3.375 lbs
  - Round to 2 decimals: 3.38 lbs Pasta

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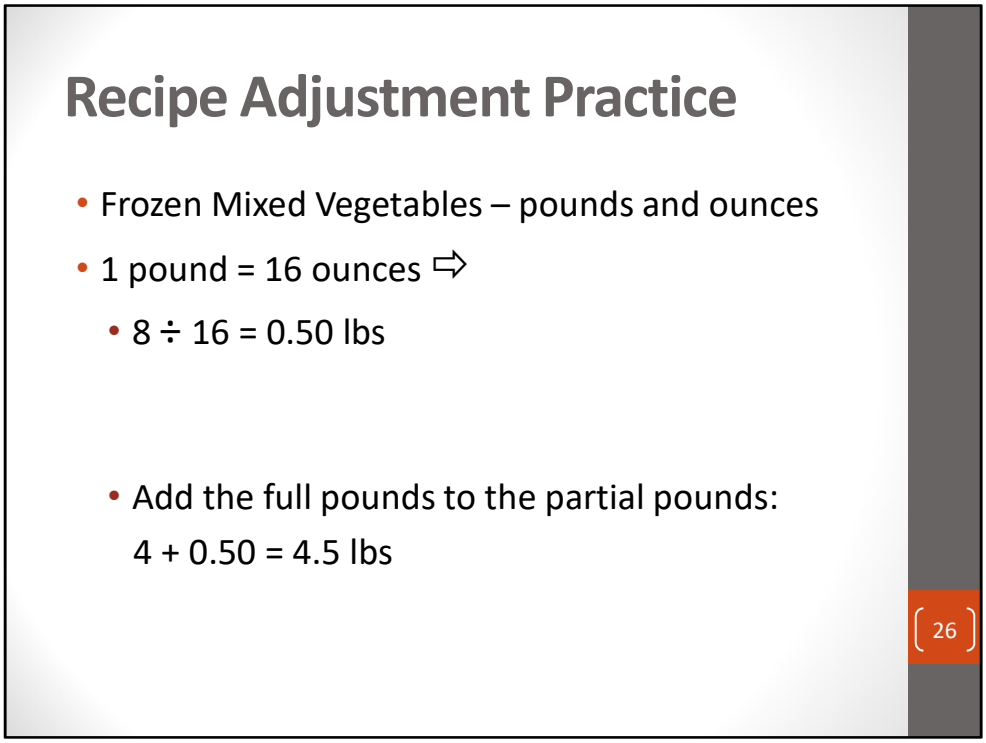
Let's try with the ingredient of spiral pasta –
If we know that one pound has 16 ounces in it, we can simply take our 6 ounces divided by 16.
6 divided by 16 gives us 0.375, or 0.38 when rounding to 2 decimal places. Add this decimal to our full 3 pounds.
This gives us 3.375, or 3.38 lbs.

- If you wanted to bring this into ounces, you can take 3.38lbs x 16, because 16 ounces are in a pound.

1 gallon to 4 quarts : 1/4 = 0.25 => 3*0.25 = 0.75
1 lb to 16 oz : 1/16 = 0.0625 => 6*0.0625 = 0.375
1 lb to 16 oz : 1/16 = 0.0625 => 8*0.0625 = 0.5
1 lb to 16 oz : 1/16 = 0.0625 => 14*0.0625 = 0.875



For the Frozen Mixed Vegetables –
This is also in pounds and ounces, so it is very similar to our practice with the pasta conversion. If we know that one pound has 16 ounces in it, we can simply take our 8 ounces divided by 16.
Take 8 divided by 16. This gives us 0.50. Add this decimal to our full 4 lbs.
This gives us 4.5 lbs of mixed vegetables.

- If you wanted to bring this into ounces instead of pounds, you can just take 4.5 and multiply by 16.

Recipe Adjustment Practice

- Frozen Chop Broccoli – pounds and ounces
- 1 pound = 16 ounces
  - 14 16 = 0.875 lbs
  - Add the full pounds to the partial pounds:
    2 + 0.875 = 2.88 lbs

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For the Frozen Chop Broccoli –
Again we know that one pound has 16 ounces in it and we can simply take our 14 ounces divided by 16. This gives us 0.875, or 0.88. Add this decimal to our full 2 lbs. This gives us 2.88 lbs.

- If you wanted to bring this to ounces, you can take 2.88 x 16.

Recipe Adjustment Practice

Step 3: Multiply each ingredient by the factor.

Quantity (unit) x Factor = New Yield

New Yield

Ingredient	Unit	Convert to 1 unit	Multiply each ing. by the factor	
Water	2 gal 3 qt	2.75 gal	2.75 x 0.5	1.375
Salt	1/4 cup	1/4 cup	0.25 x 0.5	0.125
Pasta, Spiral	3 lb 6 oz	3.38 lb	3.38 x 0.5	1.690
Salad Dressing	1 qt	1 qt	1 x 0.5	0.500
Frozen Mixed Veg	4 lb 8 oz	4.5 lbs	4.5 x 0.5	2.250
Frozen Chop Broccoli	2 lb 14 oz	2.88 lbs	2.88 x 0.5	1.440
Black Pepper	2 tsp	2 tsp	2 x 0.5	1.000

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Now that we have converted all ingredients to one unit, for step 3 multiply the single unit of each ingredient by our factor of 0.5.

This multiplication generates new quantities for each of our ingredients. The results are listed in the far right column, identified by the 'new yield' arrow.

Recipe Adjustment Practice

Step 3: Multiply each ingredient by the factor.

Ingredient	Unit	Convert to 1 unit	Multiply each ing. by the factor		Amount to use in the recipe for 50 servings
Water	2 gal 3 qt	2.75 gal	2.75 x 0.5	1.375	22cups **or** 1gal 6cups
Salt	1/4 cup	1/4 cup	0.25 x 0.5	0.125	2Tbsp
Pasta, Spiral	3 lb 6 oz	3.38 lb	3.38 x 0.5	1.690	27oz **or** 1lb 11oz
Salad Dressing	1 qt	1 qt	1 x 0.5	0.500	2cups
Frozen Mixed Veg	4 lb 8 oz	4.5 lbs	4.5 x 0.5	2.250	36oz **or** 2lbs 4oz
Frz Chop Broccoli	2 lb 14 oz	2.88 lbs	2.88 x 0.5	1.440	23oz **or** 1lb 7oz
Black Pepper	2 tsp	2 tsp	2 x 0.5	1.000	1tsp

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We can see that our new quantity of water is 1.375 gallons. To make this number useful, we will want to figure out how many cups the remaining decimal of 0.375 represents.

- Since there are 16 cups in one gallon, take 0.375 x 16. This gives us 6 cups.
    - Our new total quantity of water needed is 1 gallon, and 6 cups.

We can see that our new quantity of pasta is 1.69 lbs. To make this number useful, we will want to figure out how many ounces the remaining decimal of 0.69 represents.

- Since there are 16 ounces in one lb, take 0.69 x 16. This gives us 11 ounces.
    - Our new total quantity of pasta needed is 1 lb, 11 ounces.

We can see that our new quantity of mixed vegetables is 2.25 lbs. To make this number more useful, we will want to figure out how many ounces the remaining decimal of 0.25 represents.

- Since there are 16 ounces in one lb, take 0.25 x 16. This gives us 4 ounces.
    - Our new total quantity of mixed vegetables needed is 2 lbs, 4 ounces.

We can see that our new quantity of frozen chopped broccoli is 1.44 lbs. To make this number more useful, we will want to figure out how many ounces the remaining decimal of 0.44 represents.

- Since there are 16 ounces in one lb, take 0.44 x 16. This gives us 7.
    - Our new total quantity of frozen chopped broccoli needed is 1 lb, 7 ounces.

You can always bring amounts down to a smaller form of measurement.
1 gallon to 16 cups – 1 cup is 1/16 or 0.0625 of a gallon
1 cup to 16 Tbsp – 1 Tablespoon is 1/16 or 0.0625 of a cup
1 lb to 16 oz – 1 ounce is 1/16 or 0.0625 of a pound
1 qt to 4 cups – 1 cup is 1/4 or 0.25 of a quart

Thank you!

Please feel free to contact the **CANS office** with any questions!

Phone: 605-773-3413

Email: DOE.SchoolLunch@state.sd.us

Website: doe.sd.gov/cans/

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Thank you for attending this webinar on Standardizing Recipes.
If you have any questions on this training, please feel free to contact our office. You can email us at DOE.SchoolLunch@state.sd.us or give us a call at 605-773-3413, or you can visit our website.

This training credits for 30 minutes of training in Key area 1- menu planning and key area 2-operations.
This is the certificate of training completion, please print and sign this slide for your records.

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(1) Mail: U.S. Department of Agriculture
Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW
Washington, D.C. 20250-9410;

(2) Fax: (202) 690-7442; or

(3) Email: program.intake@usda.gov.

This institution is an equal opportunity provider.

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