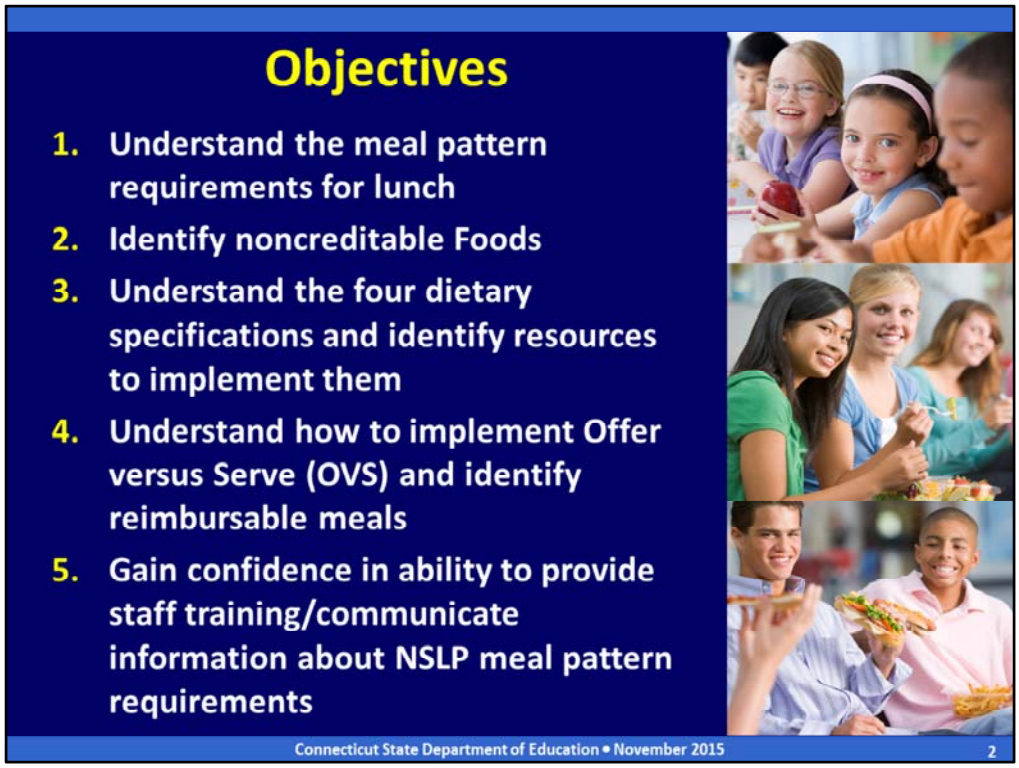

**Room Set-up** (see "Training Agenda" in section 1 of your Instructor Guide).
Participant handout packets placed at each table.

- Music playing as participants enter (use Pandora).
- Registration table with sign-in and name tags – make sure all participants sign in.
- Parking lot posted.

**Getting Started**

- Welcome and presenter introductions.
- Conduct **Inclusion Activity** (see "Inclusion Activity" in section 1 of your Instructor Guide).
- Provide a **brief** overview of the handout packet (see list of handouts in "Binder Contents" in section 1 of your Instructor Guide). Emphasize that the "Resources for School Meals" handout includes a list of key Web sites and resources for the National School Lunch Program (NSLP) and School Breakfast Program (SBP).

**INSTRUCTOR NOTES:** Be familiar with all participant handouts (section 4 of the Instructor Manual).




Take a look at your agenda. We have five main objectives for today's workshop. This workshop is intended to help you:

- understand the meal pattern requirements for lunch including the five meal pattern components, serving sizes and specific crediting criteria;
- identify noncreditable foods, i.e., foods that do not contribute to the meal pattern;
- identify the dietary specifications (nutrition standards) that school lunches must meet and resources to help to implement them;
- understand how to implement Offer versus Serve (OVS) and identify reimbursable meals; and
- gain confidence in your ability to provide staff training, or if you do not supervise staff/provide staff training, increase confidence in your ability to communicate information about the NSLP meal pattern requirements to others, e.g., food service colleagues, school staff, students and families.

Throughout the workshop, we will have several interactive activities to help you understand and apply the concepts you are learning today. We will also show you where to find resources that provide additional information. Whenever you see a yellow bar at the bottom of a slide, there is a link to a handout or resource regarding the content addressed in that slide.

**INSTRUCTOR NOTES:** Have participants take out their agenda handout.


To help everyone get the most from this workshop, we would like to set some learning expectations for the group.

**Give feedback**: Let us know if you have a question, need more information, if we are going too quickly or if you need a break. We want you to have a comfortable learning experience.

**Remain positive.** We understand that the USDA requirements can be challenging and that change is difficult. We ask that you keep a positive attitude and remember the reasons for the meal pattern changes – to improve the health and learning of our nation's children.

**On task:** Please stay on task. We ask that you please refrain from side conversations that are not related to the workshop content or activities, so as not to disrupt the learning environment for your colleagues. We will allow plenty of time for questions and conversation during the activities and throughout the workshop. We will also provide a "parking lot" if there are questions we don't have time to address or if we don't know the answers.

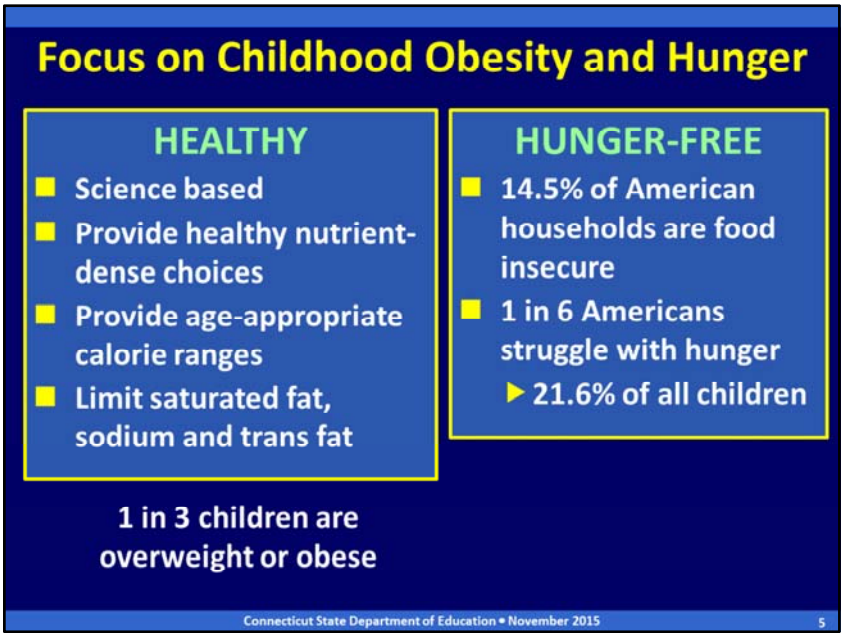
**Unplug:** Please silence your cell phones and refrain from texting. If you need to text or make a call, please step outside so as not to be distracting to others.

**Participate:** Be involved in todays information and activities and take charge of your own learning. We encourage you to ask questions.

Let's get started!


Today we are going to be talking about the meal pattern requirements for the National School Lunch Program, as legislated by the USDA's final rule, "Nutrition Standards in the National School Lunch and School Breakfast Programs" from January 26, 2012.

This rule made significant improvements to school meals, which were based on the requirements of the Healthy, Hunger-Free Kids Act (HHFKA) of 2010. Most of these changes started in school year 2012-13 for the NSLP, with some changes phased in over time, such as the whole grain-rich requirements and sodium limits.




The title of the HHFKA legislation emphasizes two important focus areas for the USDA school meal programs. The first word of the title, **"healthy"** emphasizes that the USDA standards for school meals focus on children's health.

- The school meal patterns are **science based.** They align school meals with the latest nutrition science, including the *Dietary Guidelines for Americans,* and the IOM recommendations for school meals.
- They are designed to provide healthy, nutrient-dense choices that help children get the nutrients they need to grow and learn in school. "Nutrient-dense" means that foods provide substantial amounts of naturally occurring vitamins, minerals and other nutrients with relatively few calories. Examples include fruits, vegetables, whole grains, low-fat or nonfat dairy products, lean meat, skinless poultry, fish, eggs and beans.
- The meal standards include age-appropriate calorie ranges.
- They also provide limits for saturated fat, sodium and trans fat.

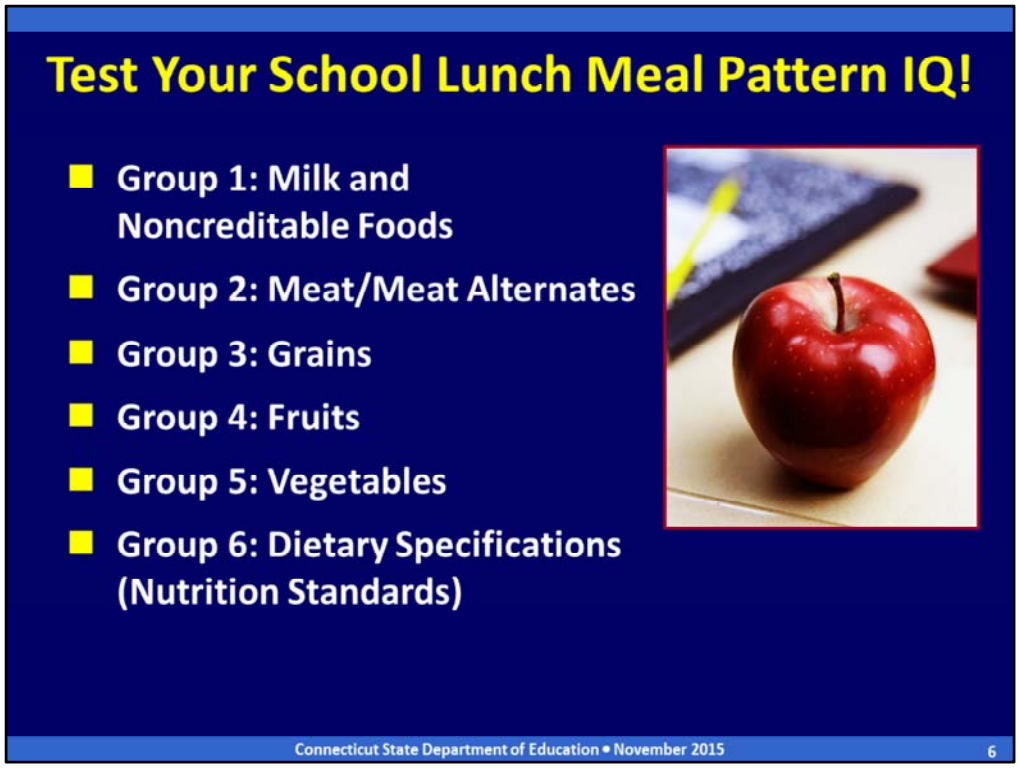
Healthy school meals help combat the epidemic of childhood obesity. In 2012, more than 1 in 3 children were overweight or obese. Why are we so concerned about this statistic? Childhood obesity has both immediate and long-term effects on health and well-being, such as increased risk for preventable diseases like diabetes, heart disease and many types of cancer. If left unaddressed, health experts tell us that our current generation of children may well have a shorter lifespan than their parents.

The second word of the title, **"hunger-free,"** emphasizes that the USDA standards for school meals focus on the urgent problem of childhood hunger. Hunger and food insecurity continue to affect millions of our nation's children. The USDA indicates that during 2012:

- an estimated 14.5 percent of American households were **food insecure** at least some time during the year, meaning they lacked access to enough food for an active, healthy life for all household members;
- one in six Americans struggled with hunger. This represents more than 48.9 million Americans, including 15.8 million children (**21.6 percent of all children**). For many of these children, school meals are the only nutritious source of food they can count on.

**INSTRUCTOR NOTES:** The following is background information only, in case questions arise.
**Overweight** is defined as having excess body weight for a particular height from fat, muscle, bone, water or a

combination of these factors. **Obesity** is defined as having excess body fat.

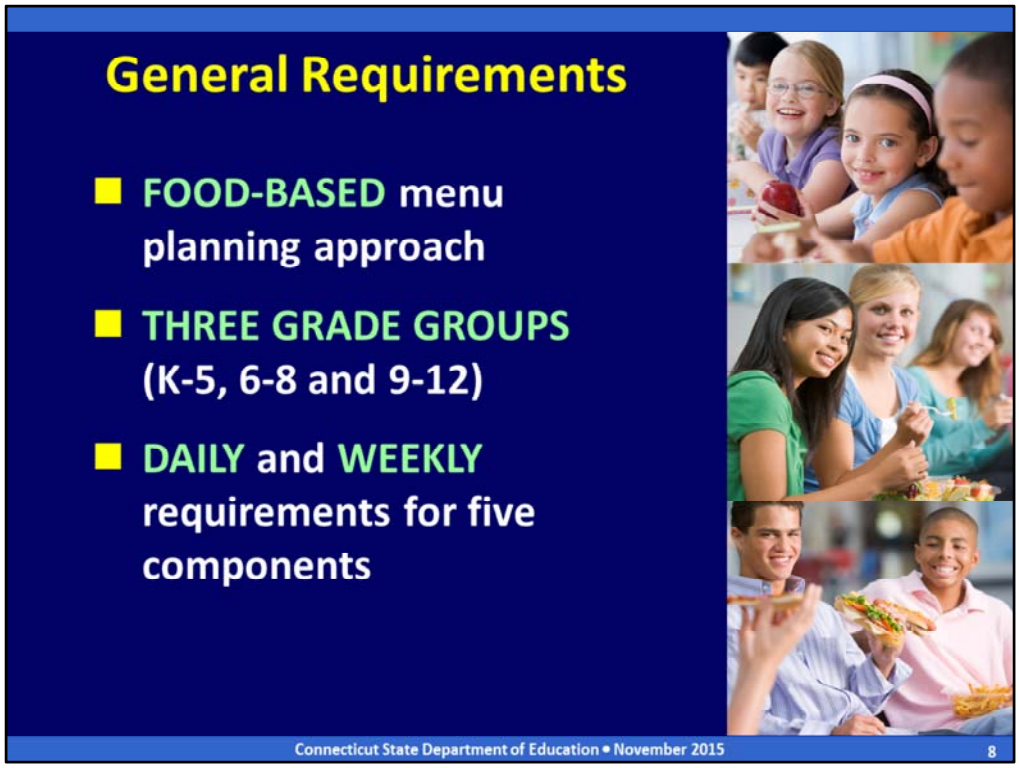



We're going to start with an activity to test your school breakfast meal pattern IQ. This activity focuses on what we know about the meal pattern requirements for school year 2014-15.

**INSTRUCTOR NOTES:**

- Write the group number and topic on chart paper (Group 1 Milk and Noncreditable Foods, Group 2 Meat/Meat Alternates, Group 3 Grains, Group 4 Fruits, Group 5 Vegetables and Group 6 Dietary Specifications). Post each paper in different sections of the room. Have markers available in each section.
- Divide participants into six groups by counting off by sixes. Each group goes to the corner with their flip chart paper.
- Ask participants to leave all their handouts on the table.
- As a group, participants have 5 minutes to identify everything they know about their topic. The person with the brightest color top is the recorder and writes all information on chart paper. The person with the longest hair is the reporter.
- When you hear the chimes, time is done and each group brings their list to post next to each other in the front of room or a visible location that all participants can see. Everyone sits back down at their original table.
- At the beginning of each section, ask the group reporter to present their information then share the slides that apply to that section.


Before we look at the individual meal pattern components, let's begin with an overview of the general requirements for school lunches.

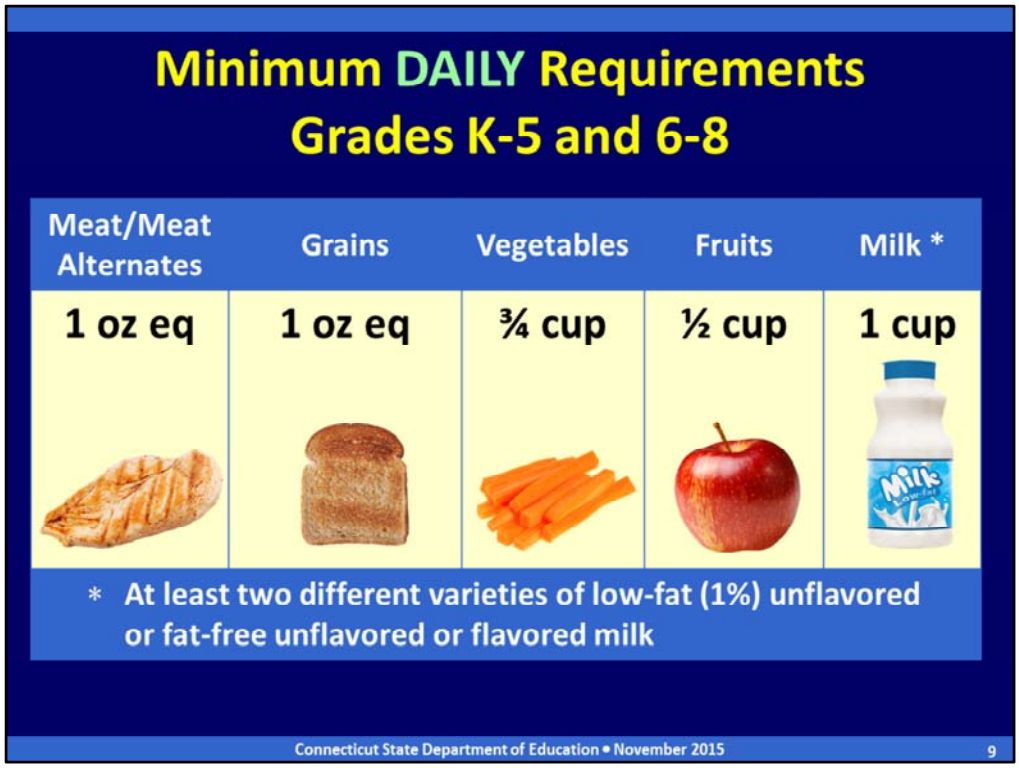



All school meals (lunch and breakfast) follow one food-based menu planning approach. This approach simplifies menu planning, serves as a teaching tool to help children choose a balanced meal and ensures that students have access to the key food groups recommended by the Dietary Guidelines.

Schools use the same three grade groups for planning lunches and breakfasts: K-5, 6-8 and 9-12. These grade groups provide age-appropriate meals. *

There are daily and weekly serving size requirements for five components: meats/meat alternates, grains, vegetables, fruits and milk. Schools can serve more than the minimum specified serving sizes in the meal patterns if the average weekly menu meets the specific calorie limits and other dietary specifications (saturated fat, trans fat and sodium) for each grade group. We will talk more about this a little later.

* **INSTRUCTOR NOTES:**
There is some flexibility in the meal patterns for schools that have different grade configurations, such as schools with grades K-8. Due to time constraints, this workshop will not review the meal patterns for schools with different grade configurations, such as schools with grades K-8. If questions arise, refer participants to the CSDE's online *Menu Planning Guide for School Nutrition Programs*. There is a handout on the Menu Planning Guide in their handout packet. The Web link for this guide in also the "Menu Planning Tools for School Meals" section at the end of the participant PowerPoint handout.



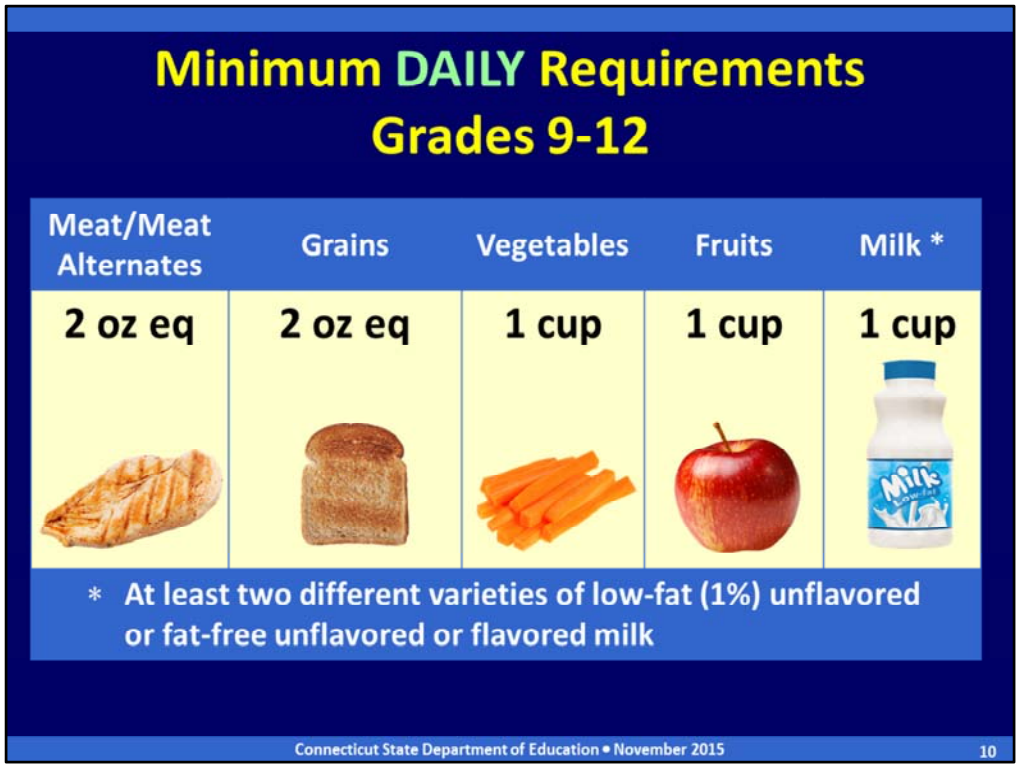

Take out your handout on **the** lunch meal pattern. The lunch meal pattern includes five components: meats/meat alternates, grains, vegetables, fruits and milk.

The chart on this slide provides an overview of the minimum daily requirements for a for grades K-5 and 6-8. These requirements are the same for five-day weeks and seven-day weeks. The daily requirements for these two grade group include:

- 1 ounce equivalent of meat/meat alternate;
- 1 ounce equivalent of grains;
- ¾ cup of vegetables;
- ½ cup of fruit; and
- 1 cup of milk.

**INSTRUCTOR NOTES:** All meals patterns are available on the CSDE's Meal Patterns Web page (http://www.sde.ct.gov/sde/cwp/view.asp?a=2626&q=333770 for five-day weeks and http://www.sde.ct.gov/sde/cwp/view.asp?a=2626&q=334100 for seven-day weeks):

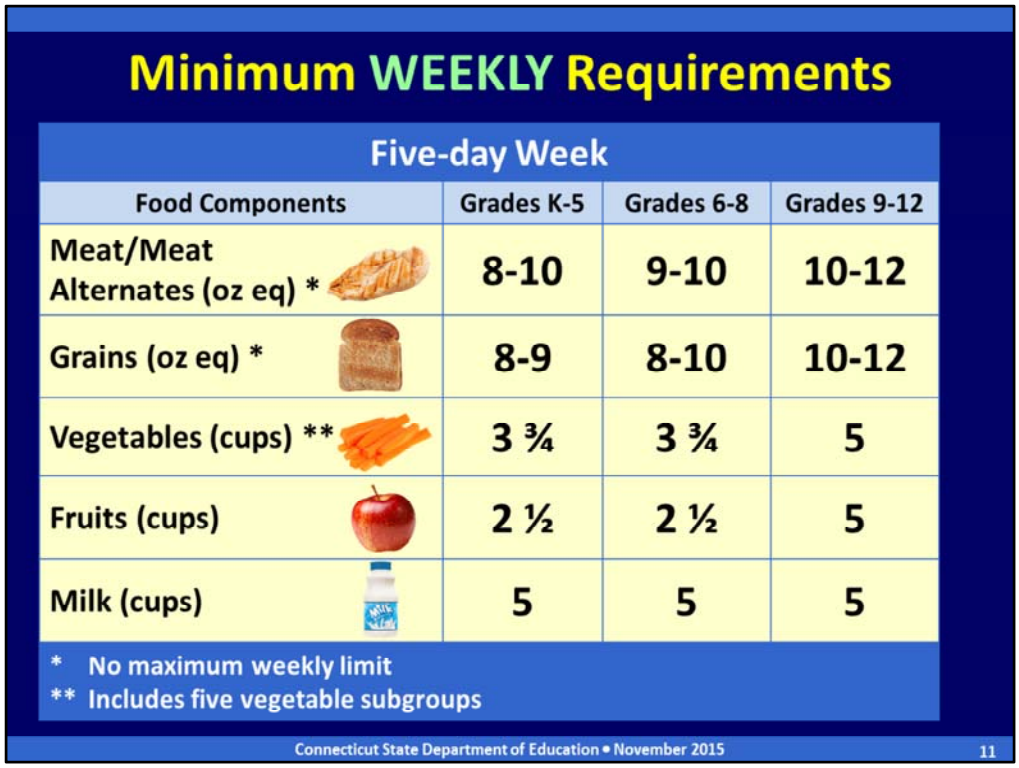
- Five-day week: http://www.sde.ct.gov/sde/lib/sde/pdf/deps/nutrition/nslp/lunch.pdf
- Seven-day week: http://www.sde.ct.gov/sde/lib/sde/pdf/deps/nutrition/nslp/7daylunch.pdf




The chart on this slide provides an overview of the minimum daily requirements for a five-day week for grades 9-12.

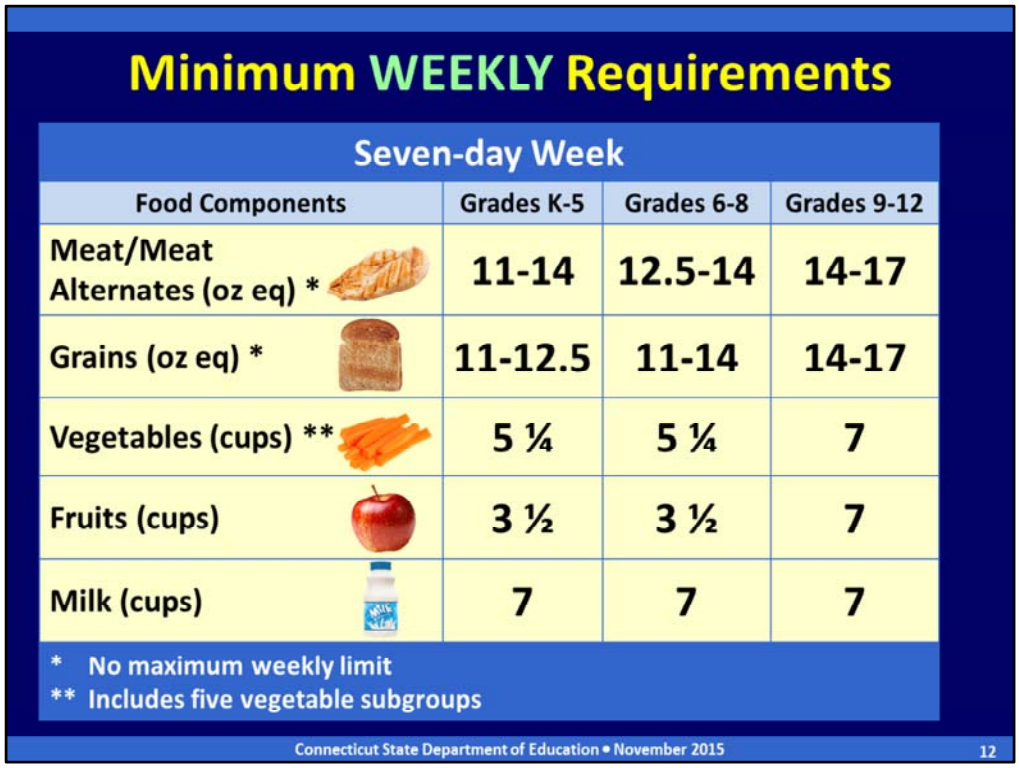
The daily requirements for this grade group include:

- 2 ounce equivalents of meat/meat alternate;
- 2 ounce equivalents of grains;
- 1 cup of vegetables;
- 1 cup of fruit; and
- 1 cup of milk.




This slide shows the weekly amounts of each component for a five-day week. We will look at each component in detail in a minute.

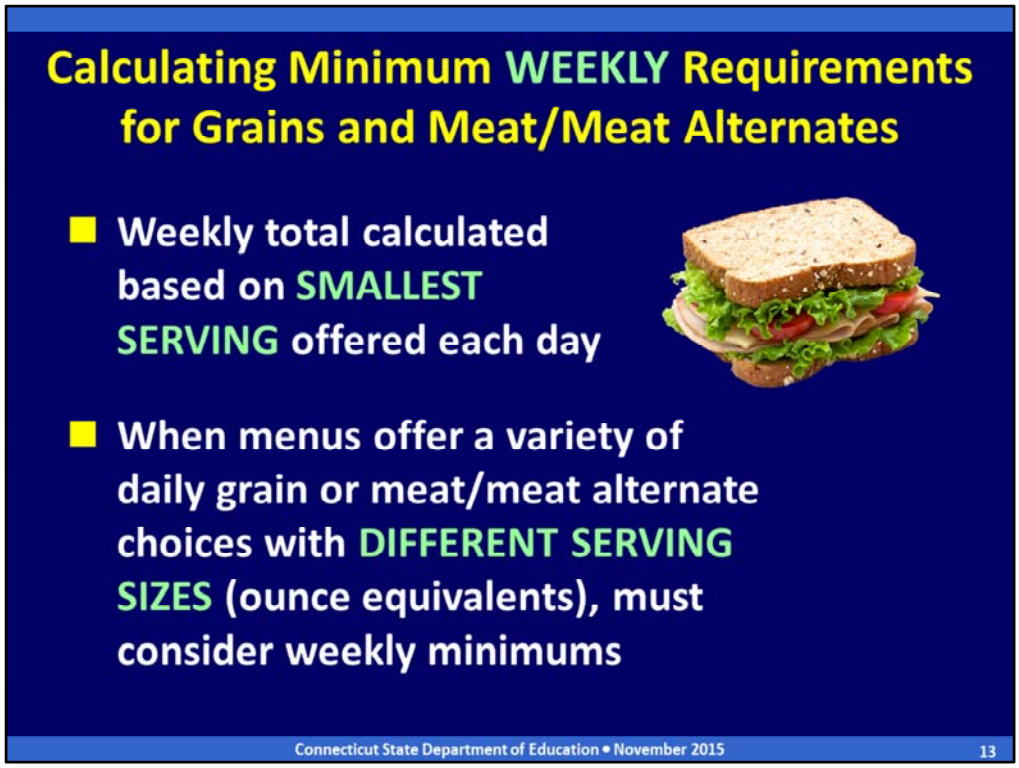
- There are different amounts for each grade group (K-5, 6-8 and 9-12).
- There are weekly ranges for the grains and meat/meat alternates components. Meals must meet the weekly **minimums** but are not required to comply with the maximums. In January 2014, the USDA permanently eliminated the maximums for meat/meat alternates and grains, allowing schools the flexibility to serve larger portions of lean protein and whole grains at mealtime. However, lunches must still meet the daily and weekly **minimums** for meat/meat alternates and grains. In addition, the weekly **calorie ranges** with maximum limits remain in effect. Lunches must also continue to meet the weekly limits for saturated fat and sodium, and all foods and ingredients must contain zero trans fat. Since meals must still meet the weekly dietary specifications, menu planners are encouraged to use the weekly maximums for both meat/meat alternates and grains as a **menu planning target** that can assist in offering balanced meals that meet the calorie, sodium and saturated fat requirements. If menus are planned to regularly include larger amounts of grains or meat/meat alternates, they might not comply with the weekly calorie limits and dietary specifications.
- The vegetables component includes five subgroups that must be offered in specific amounts over the week. We will look at these five subgroups later on.




This chart provides an overview of the required lunch meal components and amounts for facilities operating on a seven-day week, such as residential child care institutions.

**INSTRUCTOR NOTES: INSTRUCTOR NOTES:** When you do the inclusion activity at the beginning of the workshop, you will find out if anyone is from residential child care institutions (RCCIs). Let participants know that this presentation includes the meal pattern requirements for both five-day and seven-day weeks. If there are no RCCIs, tell participants that since no one is using seven-day menus, we will skip the information and slides for seven-day weeks.

If there are no participants from RCCIs, skip this slide.




The weekly serving of grains and meat/meat alternates at lunch is determined by adding the ounce equivalents of all daily offerings over the week. **Menu planners must calculate the weekly total based on the smallest serving (ounce equivalents) offered each day.** For example, if the menu offers two daily grain choices that include a 1 ½-ounce equivalent item and a 2-ounce equivalent item, the menu planner must count the 1 ½-ounce equivalent item toward the weekly total.

It is important to review all grain and meat/meat alternate menu choices over the week for compliance with the minimum weekly requirements. When offering different serving sizes of grains or meat/meat alternates each day or over the week, menu planners must pay careful attention to the daily choices.

## Example of Weekly Grain Calculation

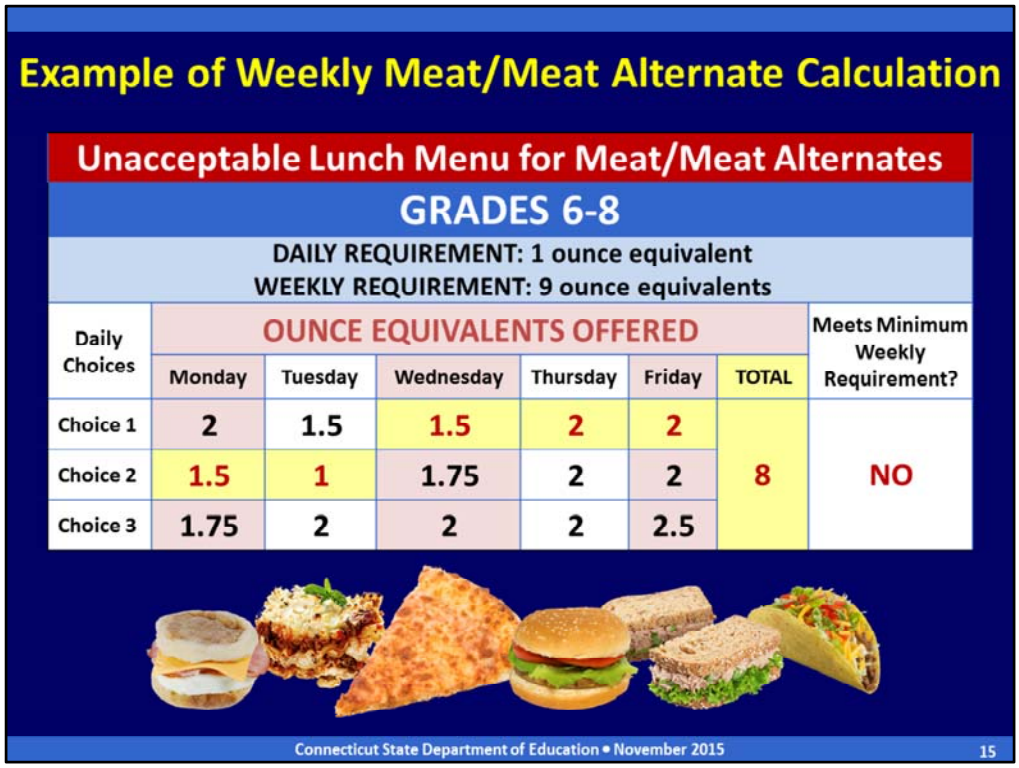
**Acceptable Lunch Menu for Grains**
**GRADES 6-8**
**DAILY REQUIREMENT: 1 ounce equivalent**
**WEEKLY REQUIREMENT: 8 ounce equivalents**

| Daily Choices | OUNCE EQUIVALENTS OFFERED | | | | | | Meets Minimum Weekly Requirement? |
|---|---|---|---|---|---|---|---|
| | Monday | Tuesday | Wednesday | Thursday | Friday | TOTAL | |
| Choice 1 | 2 | 1.5 | 1.5 | 2 | 2 | 8 | YES |
| Choice 2 | 1.5 | 1 | 1.75 | 2 | 2 | | |
| Choice 3 | 1.75 | 2 | 2 | 2 | 2.5 | | |

Connecticut State Department of Education • November 2015 14

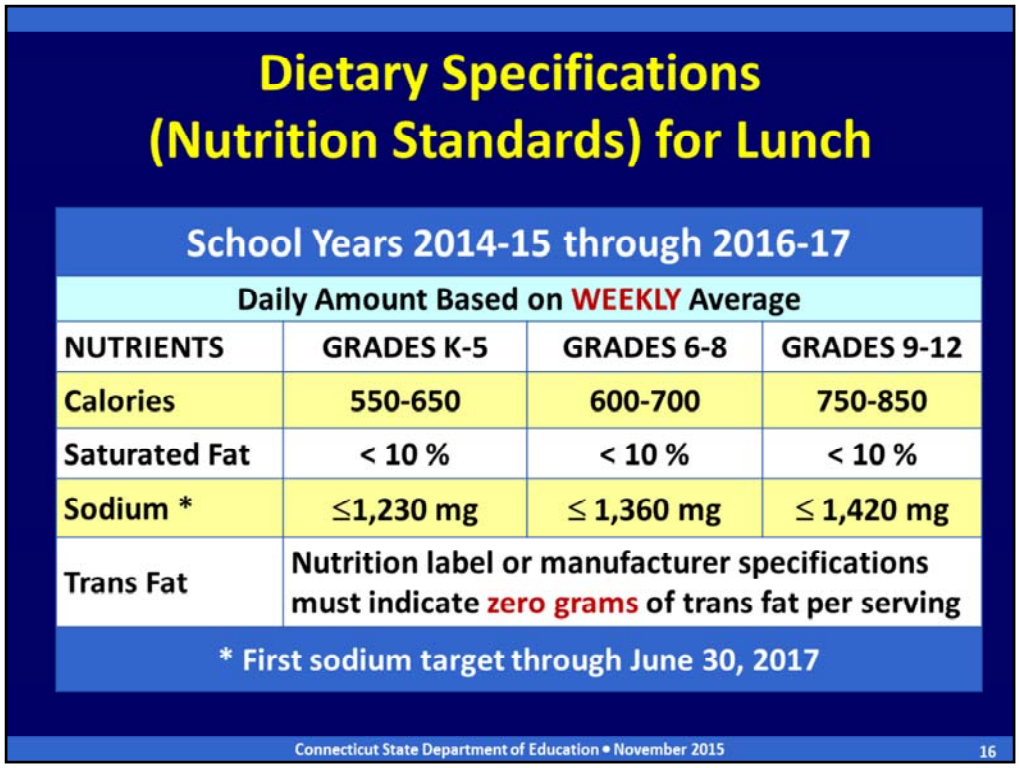
This slide shows an example of a lunch menu that meets the weekly requirements for grains for grades 6-8. The menu planner offers three different sizes of grains each day. Each choice provides at least the minimum **daily** requirement of 1 ounce equivalent and the weekly total provides the minimum **weekly** requirement.

Remember that the weekly total is calculated based on the **smallest serving** (ounce equivalents) offered each day. In this case, the weekly total of the smallest daily serving (1.5 ounce equivalents on Monday, 1 ounce equivalent on Tuesday, 1.5 ounce equivalents on Wednesday, 2 ounce equivalents on Thursday and 2 ounce equivalents on Friday) is 8 ounce equivalents, which is the same as the minimum required 8 ounce equivalents of grains for grades 6-8.




This slide shows an example of a lunch menu that does not meet the weekly requirements for meat/meat alternates for grades 6-8. The menu planner offers three different sizes of meat/meat alternates each day. While each choice provides at least the minimum **daily** requirement of 1 ounce equivalent, the weekly totals do not provide the minimum **weekly** requirement.

Remember that the weekly total is calculated based on the **smallest serving** (ounce equivalents) offered each day. In this case, the weekly total of the smallest daily serving (1.5 ounce equivalents on Monday, 1 ounce equivalent on Tuesday, 1.5 ounce equivalents on Wednesday, 2 ounce equivalents on Thursday and 2 ounce equivalents on Friday) is 8 ounce equivalents, which is less than the minimum required 9 ounce equivalents of meat/meat alternates for grades 6-8.




In addition to the required meal pattern components, lunches must also meet what the USDA calls dietary specifications (nutrition standards). This chart shows the dietary specifications for lunch.

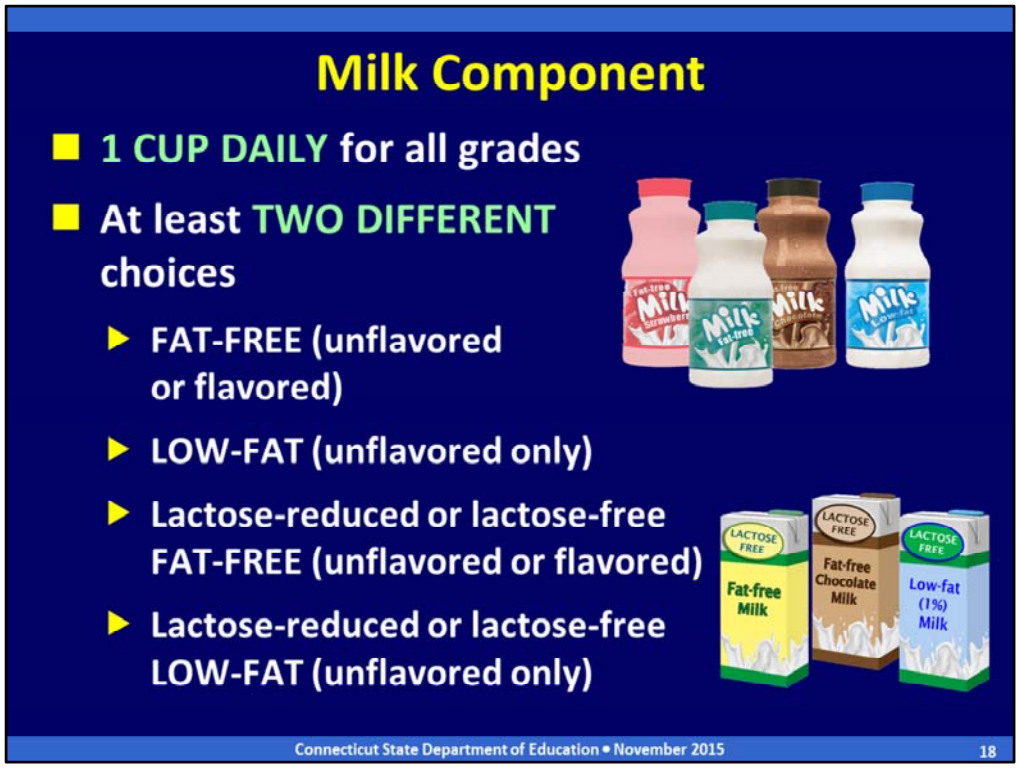
These nutrition standards are based on the **weekly average** of all meals served, whether for a five-day or seven-day week.

The weekly dietary specifications include calories, saturated fat and sodium. In addition, all foods and ingredients used in school meals must contain zero grams of trans fat.

We will look at these nutrition standards in more detail later on, but we need to keep them in mind as we think about the types of food served in each meal pattern component.

**INSTRUCTOR NOTES:** Do not review this slide in any detail. It will be addressed later on.


Let's look at each of the meal pattern components for lunch in more detail, starting with milk.




The **daily** requirement is 1 cup for all grades. The **weekly** requirement is 5 cups for a five-day week and 7 cups for a seven-day week. These are the minimum requirements. Larger amounts of milk may be served if meals do not exceed the weekly limits for calories, saturated fat and sodium.

Schools must offer at least **two different** milk choices, which include flavor variety and fat content. For example:

- fat-free milk and fat-free chocolate milk;
- low-fat milk and skim milk; or
- nonfat milk, low-fat plain milk and fat-free chocolate and strawberry milk.

Allowable milk options for school meals include:

- Fat-free (unflavored or flavored), also called "nonfat" or "skim" milk;
- Low-fat (unflavored only);
- Lactose-reduced or lactose-free fat-free (unflavored or flavored); and
- Lactose-reduced or lactose-free low-fat (unflavored only).

Whole milk and reduced fat (2%) milk **cannot** be served. The only exemption is dietary accommodations for **disabled children** whose disability results in a special dietary need, documented by a medical statement signed by a recognized medical authority.

The milk requirements also apply to children ages 3-4 (preschoolers) in the NSLP.


As a reminder, milk substitutions are **required** for children with disabilities, based on a medical statement from a recognized medical authority. These substitutions do **not** need to meet the meal pattern requirements for milk.

Schools have the **option** to offer milk substitutions for children without disabilities based on a **written parent/guardian request** that identifies the medical or other special dietary need that restricts the child's diet. If schools choose to allow milk substitutions for children without disabilities, they must offer one or more of the following:

- lactose-free or lactose-reduced milk (unflavored low-fat or unflavored/flavored fat-free); and
- nondairy milk substitutes that meet the USDA nutrition standards for fluid milk substitutes.

Milk substitutes **must** meet the USDA nutrition standards for fluid milk substitutes. They must also be included in the weekly averages for the dietary specifications.

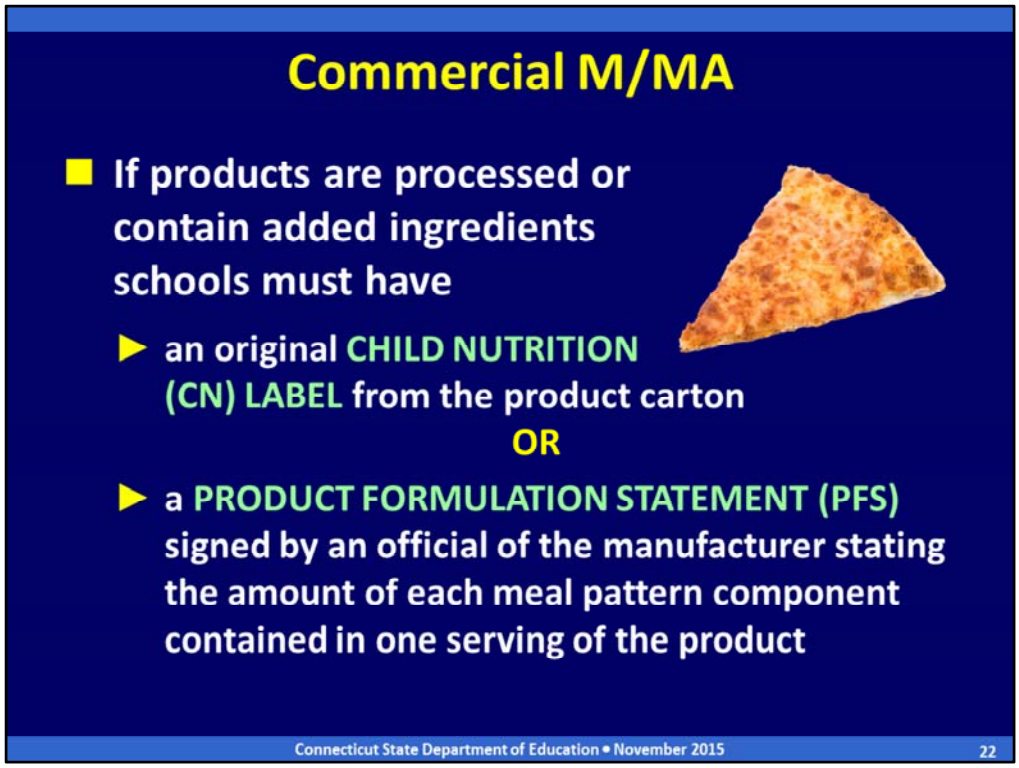
Schools should have a **written policy** for milk substitutions that is communicated to parents. Implementation of this policy must be consistent throughout the district.

**INSTRUCTOR NOTES:** A recognized medical authority is a state-licensed health care professional authorized to write medical prescriptions under state law, and recognized by the State Department of Public Health. In Connecticut, recognized medical authorities include physicians, physician assistants, doctors of osteopathy and advanced practice registered nurses (APRNs), i.e., nurse practitioners, clinical nurse specialists and certified nurse anesthetists who are licensed as APRNs. Child Nutrition Programs cannot accept medical statements that are not signed by one of the preceding recognized medical authorities. More information on the requirements for milk substitutions is available in the CSDE's handout, *Allowable Milk Substitutions for Nondisabled Children in the USDA School Nutrition Programs*. It is available on the Web site shown on the bottom of this slide. Remind participants that the yellow bar at the bottom of the slide indicates a link to a resource reading the content addressed in that slide.


As a reminder, juice and water cannot be offered as milk substitutes for nondisabled children. They do not have the same nutritional value as milk.


That concludes our review of the milk component.

**Ask participants:** Before we move on to the meat/meat alternates component, are there any questions about the milk component?




Before we review the requirements and serving sizes for different meat/meat alternates, let's look at the documentation required to indicate whether commercial products meet the meal pattern requirements for meat/meat alternates.

**Ask participants:** How many of you are familiar with CN labels? How many of you are familiar with product formulation statements?

When schools use commercially prepared foods such as pizza, chicken nuggets, cold cuts, burritos and ravioli, the menu planner must ensure that each product provides the **appropriate amount** of the meal pattern component being credited. For example, if the menu includes a commercially prepared burrito to meet the meat/meat alternates component, the menu planner must know the specific amount of meat, beans and cheese in one burrito. To credit as a meat/meat alternate, commercially prepared foods that are processed or contain added ingredients must have either:

- an original Child Nutrition (CN) label from the product carton for meat/meat alternate products; or
- a product formulation statement (PFS) signed by an official of the manufacturer stating the amount of each meal pattern component contained in one serving.

**Without this documentation, schools cannot use commercial product to credit toward the meat/meat alternates component.**


The USDA Child Nutrition (CN) Labeling Program is a voluntary labeling program for the Child Nutrition Programs. It allows food manufacturers to include a **standardized food crediting statement** on their product labels, approved by USDA.

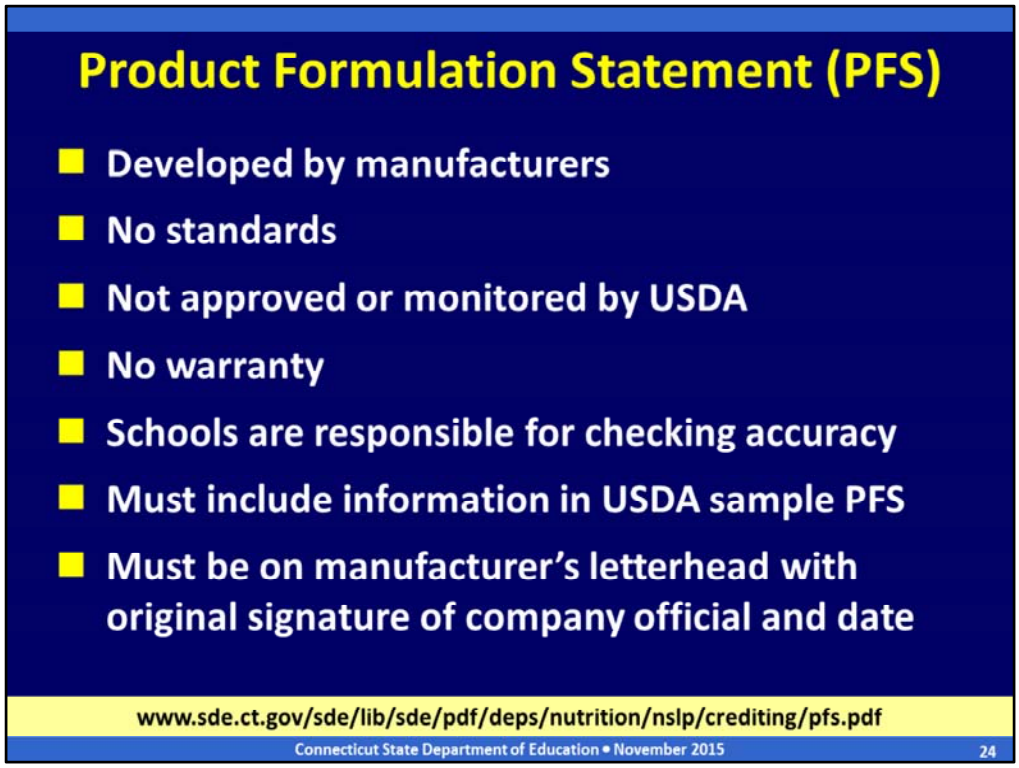
CN labeling provides a **warranty** that the product contributes to the meal pattern requirements as printed on the label.

Products eligible for CN labels include **main dish** items that contribute to the meat/meat alternate component. Examples include beef patties, cheese or meat pizzas, meat or cheese and bean burritos, egg rolls, and breaded fish portions.

Vegetables, grains and fruits must be combined or pre-plated with the meat or meat alternate to be eligible for CN labeling. If the product includes vegetable subgroups, the CN label will document the creditable amounts of the vegetable subgroups (dark green; red/orange, beans/peas (legumes), starchy, and "other"). For example, a cheese pizza with tomato sauce and vegetable toppings.

The sample CN label on this slide indicates that this product provides 1 ½ ounces of meat/meat alternates, and meets the vegetable subgroup and whole grain-rich criteria.

For more information, see the USDA's CN labeling Web site and CSDE's handout, "Child Nutrition (CN) Labels" at the links indicated on this slide.




If a CN label is not available, schools must obtain a PFS signed by the manufacturer that specifies the product's meal pattern contribution. PFSs are developed by manufacturers to provide specific information about their products. They generally include a detailed explanation of what the product contains and the amount of each ingredient in the product by weight. However, unlike CN labels PFSs:

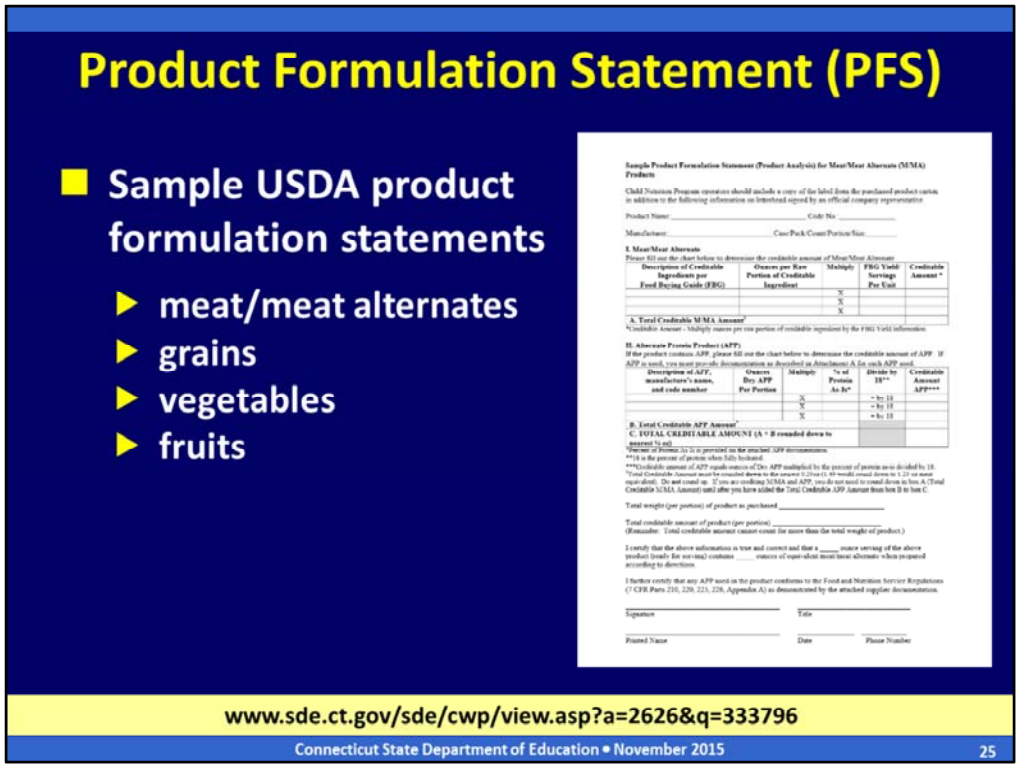
- do not have any required standard information (each company can decide what to include);
- are not approved or monitored by the USDA; and
- do **not** provide any warranty against audit claims for reimbursable meals.

The USDA does not monitor PFSs for compliance with the product's actual formulation or stated contribution to the meal pattern requirements.

The school food authority is ultimately responsible if a menu does not meet the meal pattern requirements. It is their responsibility to check the manufacturer's crediting information for accuracy. When a PFS is used to determine crediting information for the USDA Child Nutrition Programs, it must:

- indicate how the product credits toward the USDA meal pattern requirements;
- document how the manufacturer obtained the crediting information by citing specific Child Nutrition Program resources or regulations such as the USDA Food Buying Guide and USDA policy on crediting foods, e.g., USDA policy memoranda; and
- be prepared on the manufacturer's letterhead with an original signature of a company official and the date of issue.

You can find more information in the CSDE's handout, "Product Formulation Statements" at the link indicated on this slide. This resource is also listed in the handout, "Resources for School Meals," which is included in your handout packet.

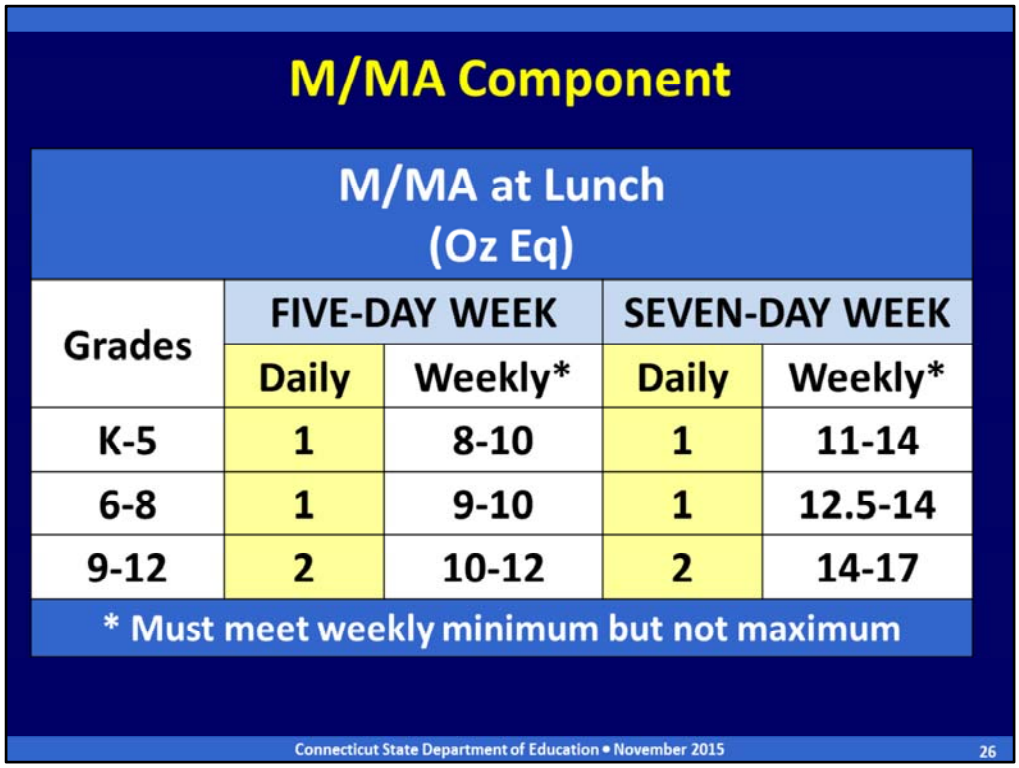



The USDA has PFSs with completed samples for the vegetables, fruits, grains and meat/meat alternates. If you receive a PFS from a manufacturer, it must include the **same information** on the USDA sample PFS forms.

These are available on the USDA's Web site, which you can link to from the CSDE's Crediting Foods Web page at the address indicated on the bottom of the slide.

This slide show the sample PFS for meat/meat alternates.

**INSTRUCTOR NOTES:**
Let participants know that each table has one packet of all the USDA sample PFSs so they can see what a PFS requires.

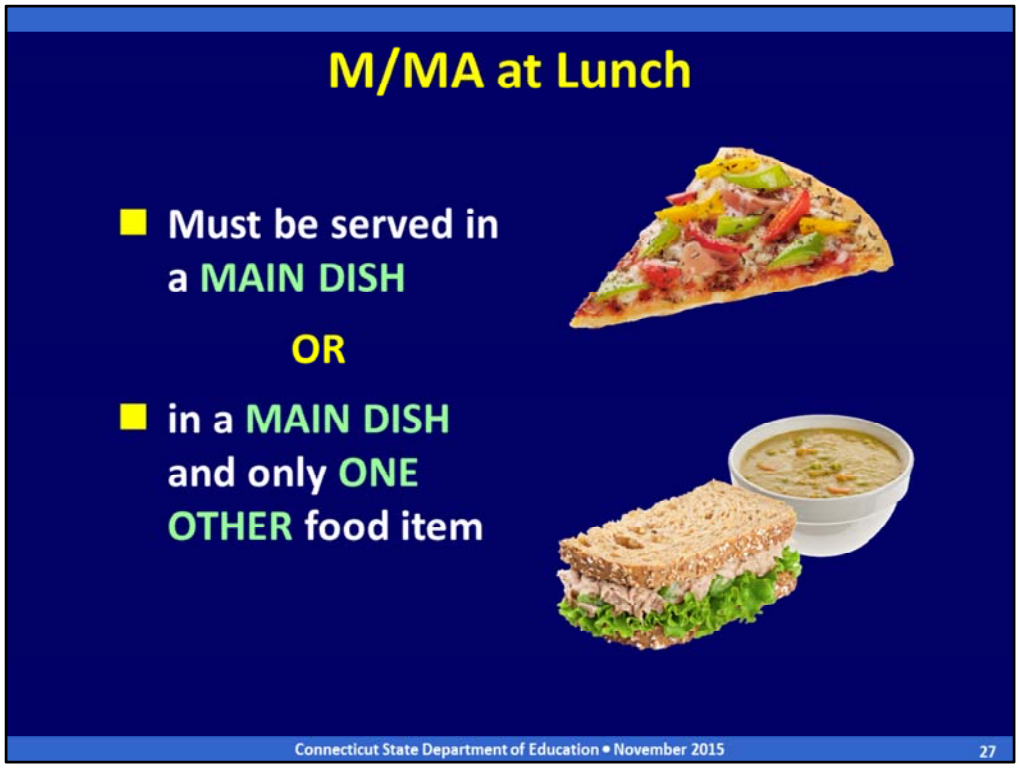



This chart shows the daily and weekly meat/meat alternate requirements for each grade group over a five-day and seven-day week. Schools must offer daily and weekly servings of meat/meat alternates at lunch.

- The **daily** requirement is 1 ounce equivalent for grades K-6 and 6-8, and 2 ounce equivalents for grades 9-12.
- The **weekly** requirement for a five-day week is a minimum of 8 ounce equivalents for grades K-5, 9 ounce equivalents for grades 6-8, and 10 ounce equivalents for grades 9-12. For a seven-day week (e.g., residential child care institutions), the minimum is 11 ounce equivalents for grades K-5, 12.5 ounce equivalents for grades 6-8, and 14 ounce equivalents for grades 9-12.

Schools cannot offer less than the minimum weekly requirement but are not required to meet the weekly maximums. The USDA eliminated the maximums for meat/meat alternates so they are not required. However, you will still see them on the meal pattern because the regulations for the meal pattern have not changed. The weekly maximums provide a guide for planning age-appropriate meals that meet the calorie, saturated fat and sodium requirements

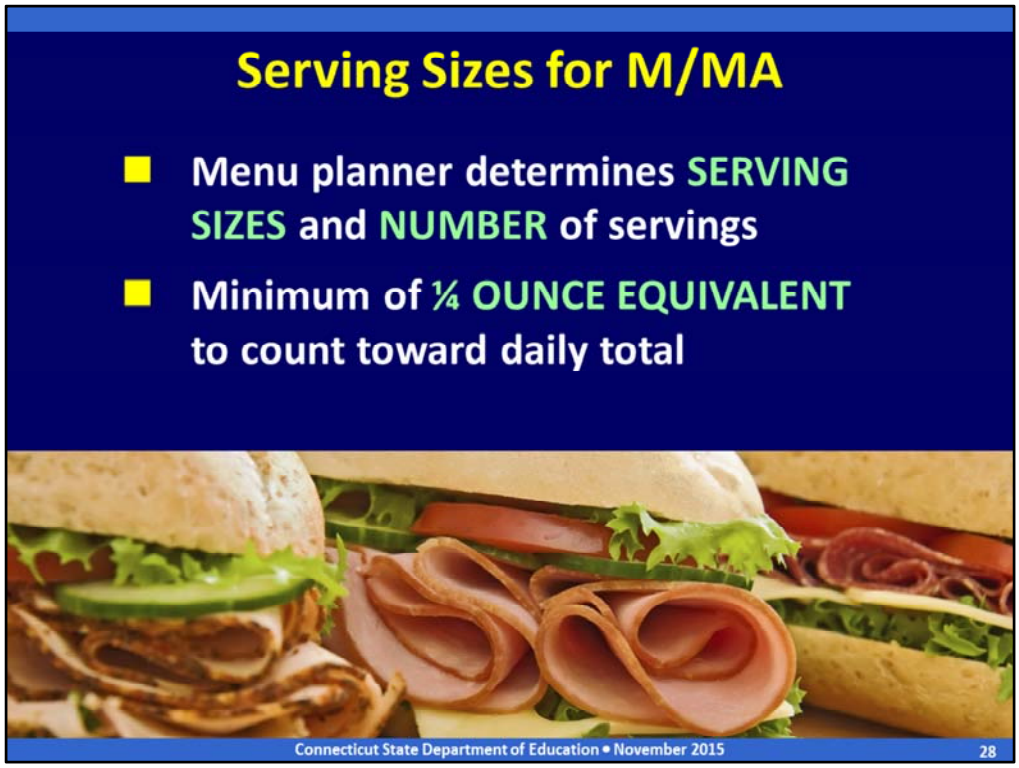
**INSTRUCTOR NOTES:** If there are no participants from RCCIs, do not review the information for seven-day weeks.



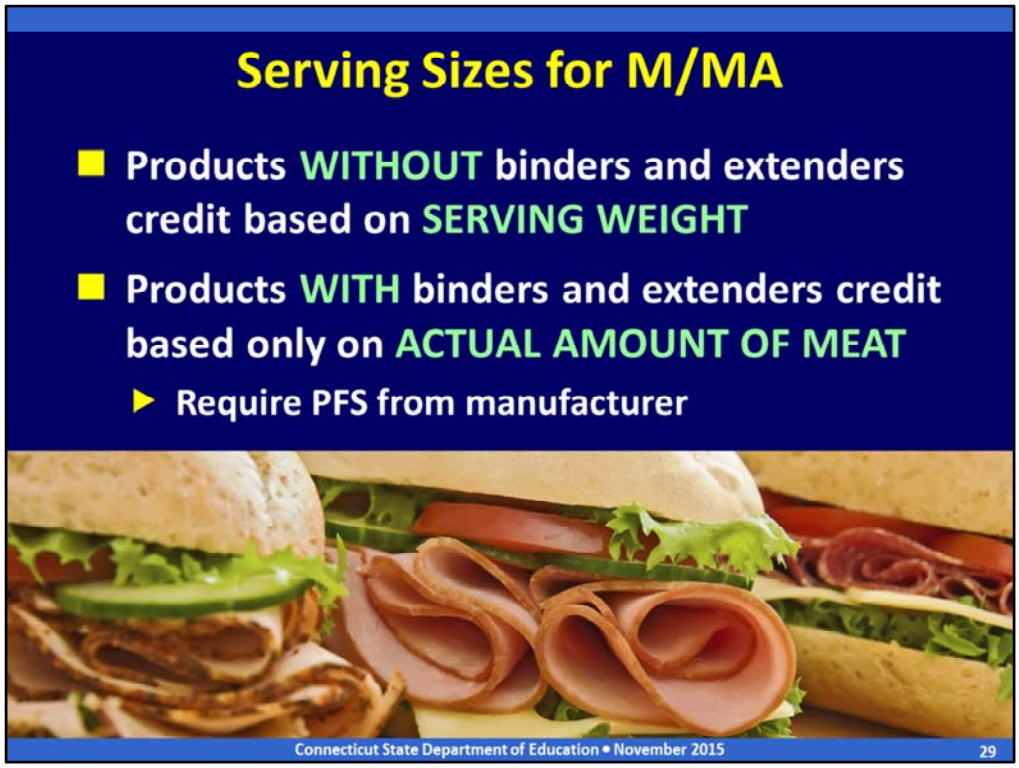

All meat/meat alternates must be served in a main dish or in a main dish and only one other food item.

A **food item** is a specific food offered within the five food components for lunch. Food items can contain one or more food components. We will talk more about food items later on when we review offer versus serve.

An example of two food items is a meal with half of a tuna fish sandwich that contains 1 ½ ounce equivalents of tuna fish (1 ½ ounces) and 1 cup of soup that contains 1 ounce equivalent of kidney beans (¼ cup), for a total of 2 ½ ounce equivalents of meat/meat alternates.




A minimum of ¼ ounce equivalent must be served to count toward the total requirements. Meat/meat alternates offered in amounts less than ¼ ounce equivalent are **not** included in the calculation of daily and weekly offerings.



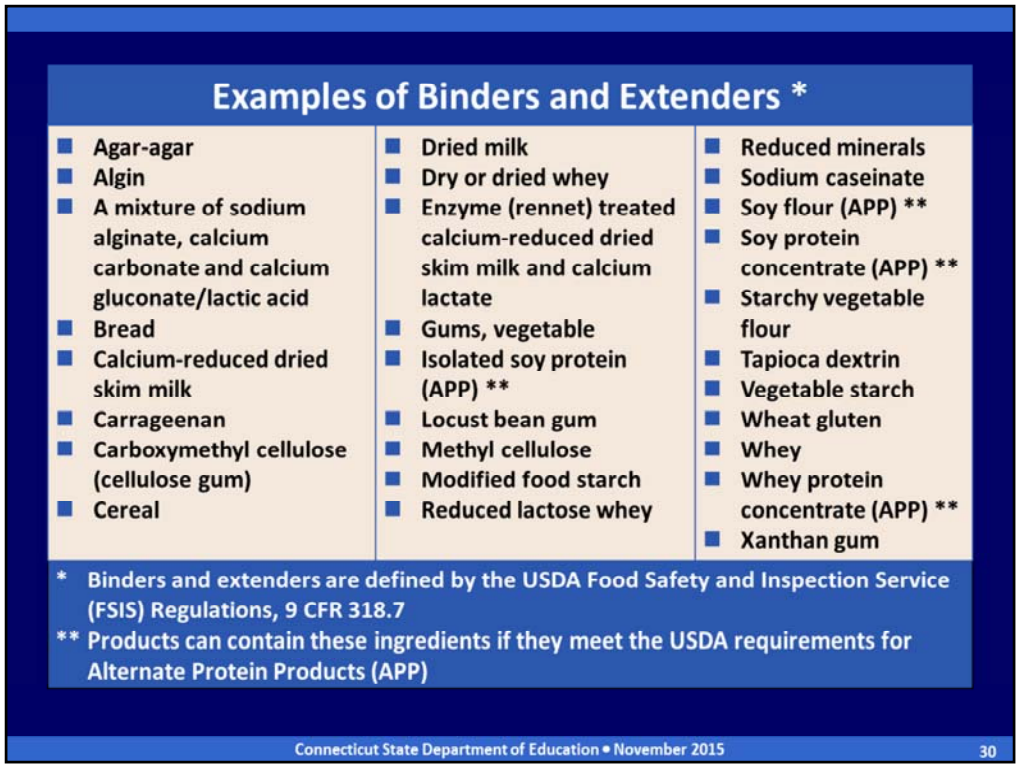

Meat products **without** binders and extenders credit on an **ounce-per-ounce** basis (actual serving weight). This means that 1 ounce of the meat product provides 1 ounce equivalent of meat/meat alternates.

Meat products **with** binders and extenders credit based only on the **actual amount** of meat without the weight of the binders and extenders.

For example, if a hot dog weighs 2 ounces and contains modified food starch as an ingredient, it cannot credit as 2 ounce equivalents of meat/meat alternates. This product would credit based on the **actual percentage of ground meat** (such as beef, chicken, turkey or pork) in the product formula. To determine this information, schools must obtain a PFS from the manufacturer.

To credit based on actual serving weight, luncheon meats, cold cuts, hot dogs, knockwurst and Vienna sausage must be **all meat** without binders or extenders or added ingredients such as water or meat broth.

When determining what products to purchase, think about the **price per ounce equivalent** of meat/meat alternate not the price per pound.

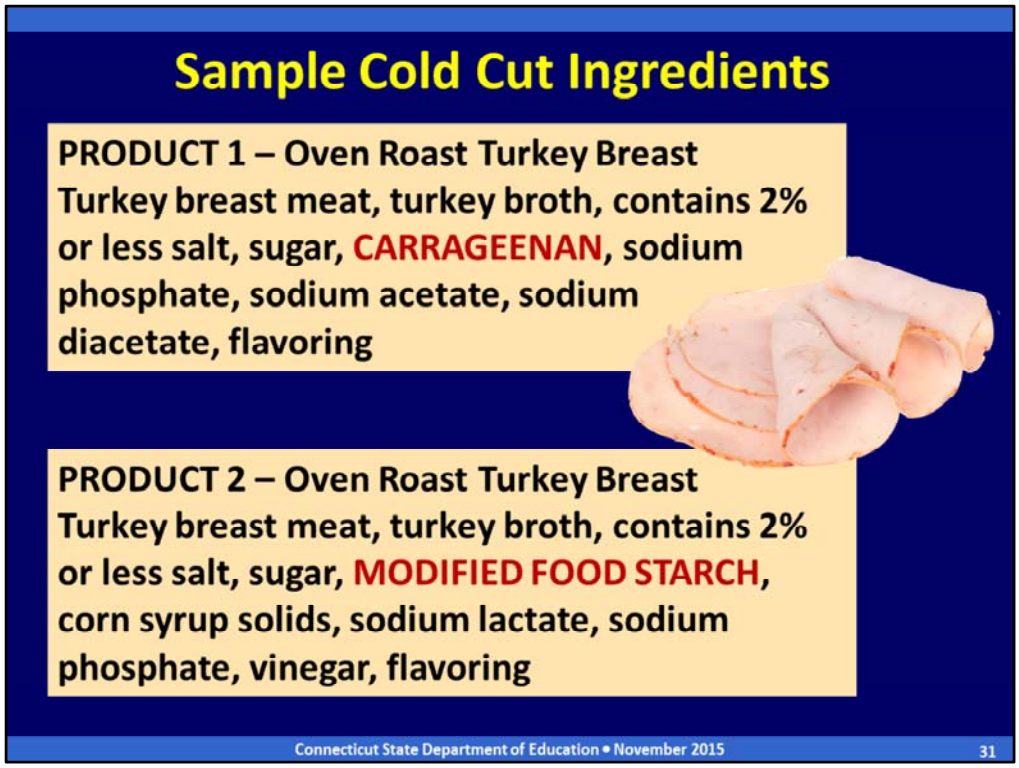



This chart lists examples of ingredients that are considered binders and extenders. Menu planners must review product labels and ingredients to determine whether products are all meat or have added binders and extenders.

It is important to note that improper crediting of cold cuts (such as deli turkey, ham and bologna) is a **common error** found when the CSDE conducts administrative reviews of school nutrition programs.

- School recipes often do not credit cold cuts correctly. For example, if a school credits 2 ounces of sliced deli turkey made with binders as 2 ounce equivalents of meat/meat alternates, the meal does not comply with the meal pattern requirements. This product must credit based on the actual percentage of turkey in the product formula, **without** the binders.
- Different brands credit differently, based on the amount of meat versus added binders and extenders. It is important to obtain a PFS for all meat products so schools are counting them as the correct amount of meat/meat alternates.

**Depending on the ingredients for the specific product, some commercial and USDA Foods (commodity) products may need 2 or 3 ounces or more to equal 1 ounce equivalent of meat/meat alternates.** This is why it is so important to read ingredients and obtain a PFS.

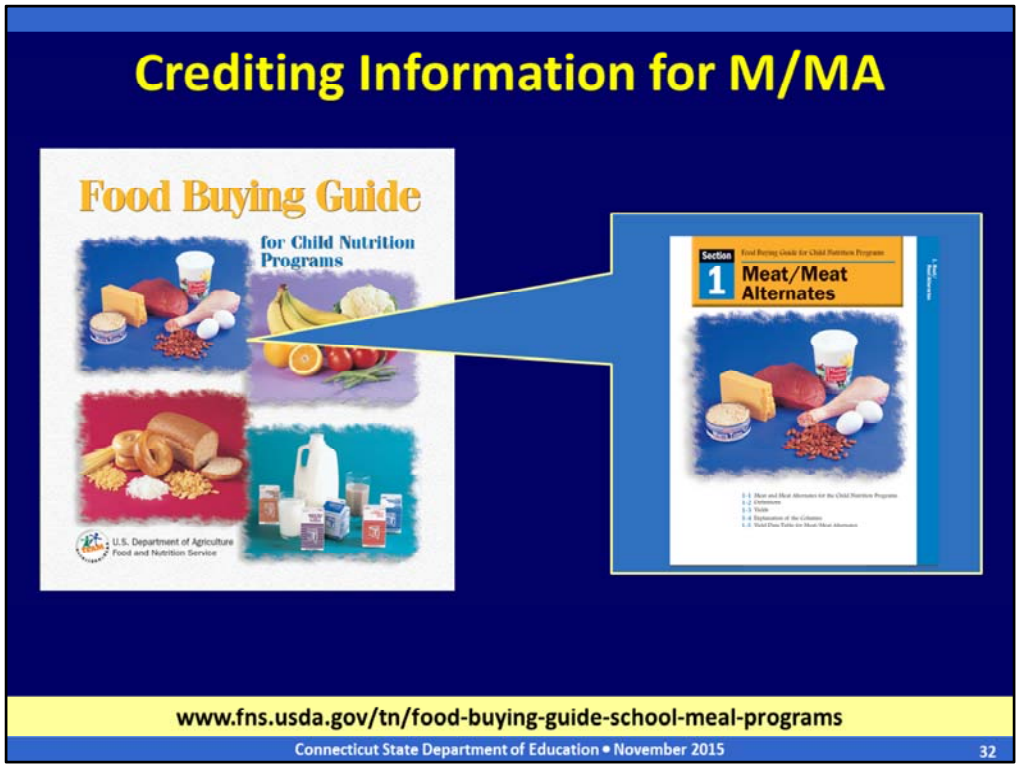



This slide shows two examples of turkey cold cuts that contain binders/extenders and therefore **cannot** credit on an ounce-for-ounce basis, i.e., 1 ounce of turkey cannot credit as 1 ounce equivalent of meat/meat alternate.

Each ingredients list contains a binder/filler (carrageenan and modified food starch indicated in red), turkey broth and other ingredients (such as sugar, salt and flavoring) that are part of the product's total weight.

**Ask participants:** How would you know how much of these turkey products to serve to provide 2 ounce equivalents of meat/meat alternates?

You must obtain a PFS from the manufacturer. You cannot credit these products toward the meat/meat alternates component without knowing the weight of the turkey that must be served to provide 1 ounce equivalent of meat/meat alternate.



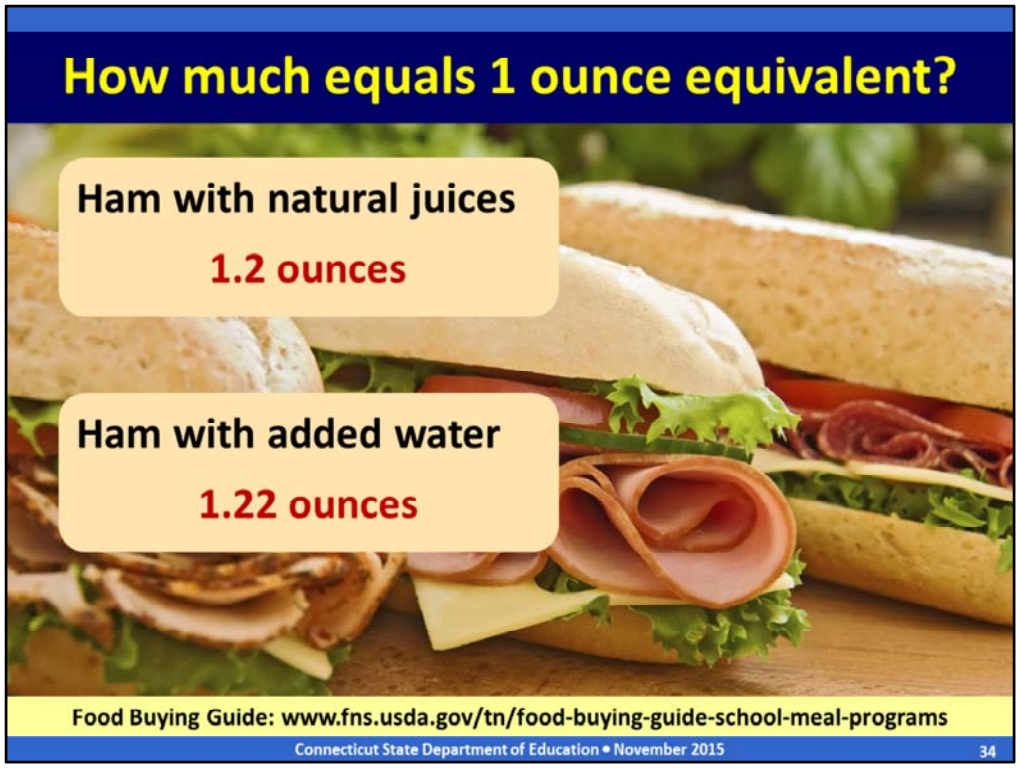

**Ask participants:** How many of you are familiar with the *Food Buying Guide for Child Nutrition Programs*? How many of you use it?

When we talk about serving sizes, the *Food Buying Guide* is the definitive resource to help schools buy the right amount of food most economically, and determine the specific contribution each food makes toward the meal pattern requirements.

Menu planners should use the USDA's *Food Buying Guide for Child Nutrition Programs* to determine how to credit meat/meat alternates, as sell as the other meal pattern components. It indicates how much of a specific food we need to serve to meet the meal pattern requirements.

You can review and download the Food Buying Guide from the link indicated on this slide.


The USDA also has an online Food Buying Guide calculator that allows you to search for foods and provides crediting information. It is available at the link indicated on this slide.




Let's look at some examples of serving sizes for meats with added ingredients, based on the Food Buying Guide.

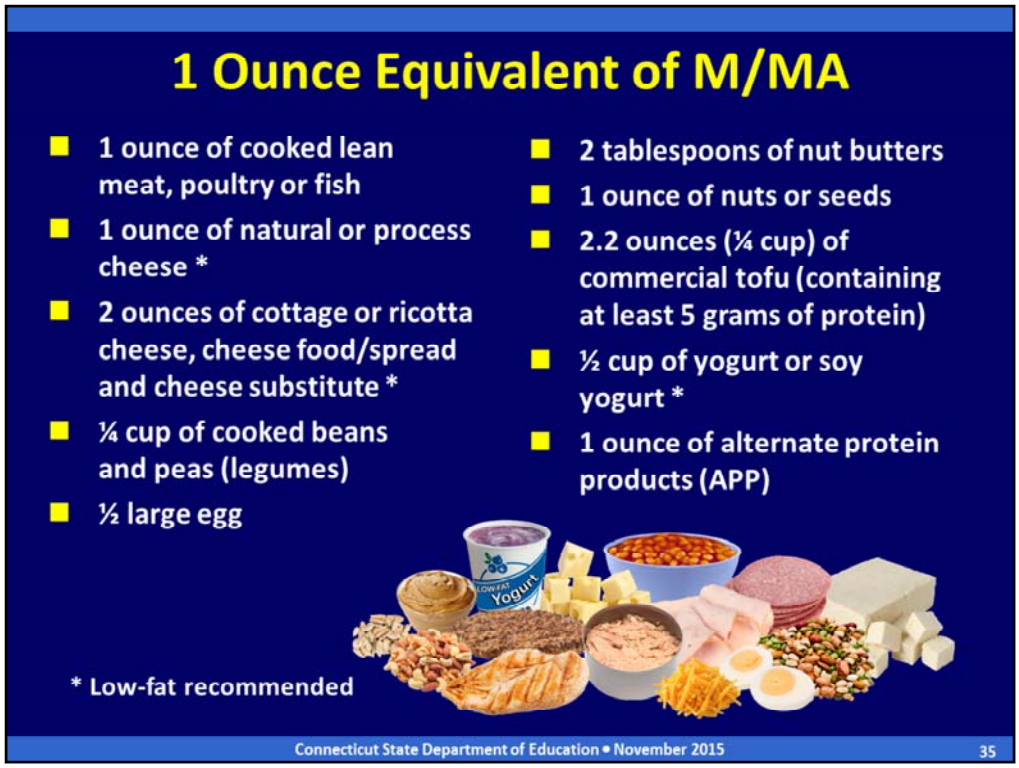
**Ask participants:**

- How do you know how much "ham with natural juices" provides 1 ounce equivalent of meat? The *Food Buying Guide* indicates that you must serve 1.2 ounces of ham with natural juices to provide 1 ounce equivalent cooked lean meat.

- How do you know how much "ham with added water" provides 1 ounce equivalent of meat? The *Food Buying Guide* indicates that you must serve 1.22 ounces of ham with added water to provide 1 ounce equivalent cooked lean meat.

If you are crediting ham with natural juices or added water based on the **actual weight**, the meal does not comply with the requirement.

Best practice is to obtain a PFS with specific information from the manufacturer on how to credit the product toward the meal pattern.

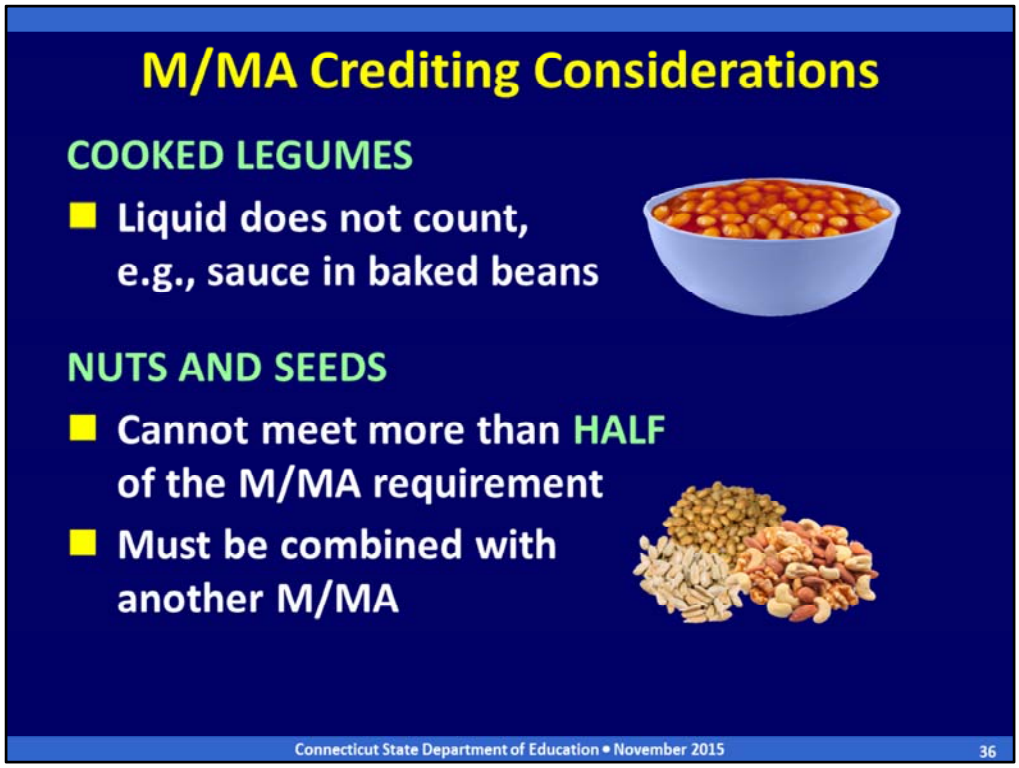



The serving sizes for meat/meat alternates are provided in **ounce equivalents**, which is the amount of meat or meat alternate that is equivalent to one ounce of cooked lean meat, poultry or fish.

For example, 1 ounce equivalent of meat/meat alternates equals:

- 1 ounce of lean meat, poultry or fish;
- 1 ounce of cheese (low-fat recommended);
- ¼ cup of cooked beans and peas (legumes);
- ½ large egg;
- 2 tablespoons of nut or seed butters (such as almond butter, cashew nut butter, peanut butter, reduced-fat peanut butter, sesame seed butter, soy nut butter and sunflower seed butter);
- 1 ounce of nuts/seeds (such as include almonds, Brazil nuts, cashews, filberts, macadamia nuts, peanuts, pecans, walnuts, pine nuts, pistachios and soynuts);
- 2.2 ounces of tofu;
- ½ cup of yogurt or soy yogurt; and
- 1 ounce of alternate protein products (APP).

Choose low-fat dairy products to help school meals comply with the saturated fat limits of the dietary specifications.

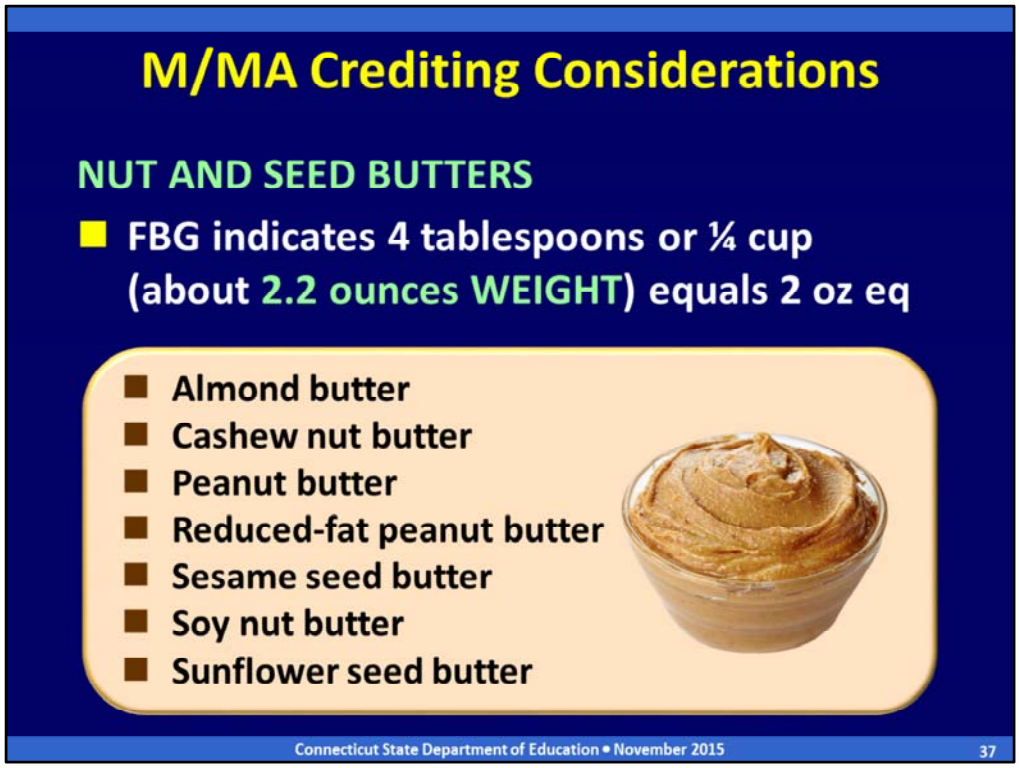



Cooked beans and peas (legumes) credit based on **volume**, e.g., a ¼-cup portion of cooked legumes equals 1 ounce equivalent of meat/meat alternate. This does not include any liquid added to the product, for example the sauce in baked beans. The serving must contain ¼ cup of beans not including any liquid or sauce. For school-made foods, this information must be documented by the school's standardized recipe. For commercial foods, this information must be documented by a CN label or the manufacturer's PFS.

Local menu planners can decide how to incorporate beans and peas (legumes) into school meals. These foods may count toward either the requirement for the meat/meat alternates or vegetables component. However, schools cannot offer one serving of beans and peas and count it toward both food components during the same meal.

If a meal includes two servings of legumes, the menu planner can choose to count one serving as a vegetable and one serving as meat/meat alternate. For example, a meal contains a salad with chickpeas and chili made with kidney beans. The menu planner may count the chickpeas as the vegetables component and the kidney beans as the meat/meat alternates component.

Nuts and seeds cannot meet more than half (50 percent) of the meat/meat alternates requirement at lunch. They must be combined with another meat/meat alternate to meet the minimum requirement for each grade group. For example, schools cannot serve 2 ounces of nuts to meet the meat/meat alternates component for grades 9-12. The menu could include
1 ounce of nuts but must also include 1 ounce of another meat/meat alternate.




Two tablespoons of nut or seed butters equal one ounce of meat/meat alternate.

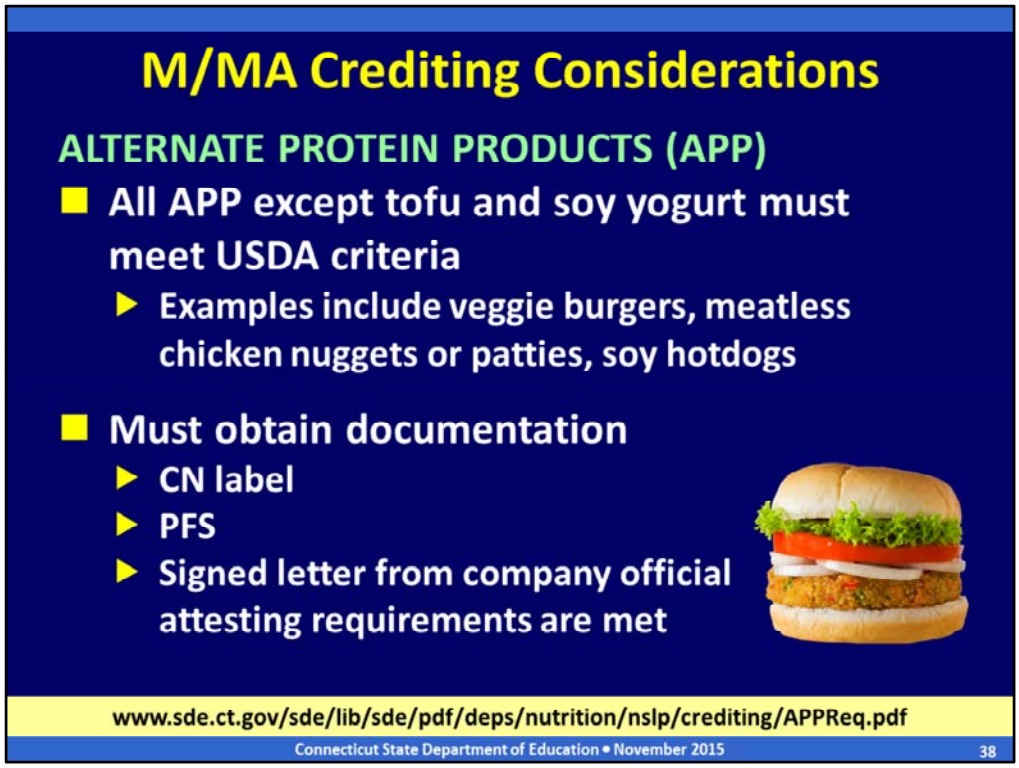
Examples of allowable nut/seed butters include almond butter, cashew nut butter, peanut butter, reduced-fat peanut butter, sesame seed butter, soy nut butter and sunflower seed butter.

It is important to note that improper crediting of nut butters is a **common error** found when the CSDE conducts administrative reviews of school nutrition programs.

The CSDE has observed schools serving **2 ounces weight** of nut butters and counting it as 2 ounce equivalents of meat/meat alternates. This results in noncompliant meals because **2 ounces weight** is less than the minimum required 4 tablespoons for 2 ounce equivalents. As indicated in the Food Buying Guide, a serving of 4 tablespoons equals about **2.2 ounces weight** of peanut butter, not 2 ounces weight of peanut butter.

- A **number 30 scoop** of peanut butter equals **1 ounce** volume (2 tablespoons) and meets the meat/meat alternate requirement for grades K-5 and 6-8.

- A **number 16 scoop** of peanut butter equals **2 ounces** volume (¼ cup) and meets the meat/meat alternate requirement for grades 9-12.




Alternate protein products (APP) include vegetable-based protein sources (such as products made from isolated soy protein, soy protein concentrate and soy flour) and nonvegetable-based protein sources (such as whey protein and casein). Examples of commonly used APP include veggie burgers, meatless chicken nuggets or patties and soy hotdogs.

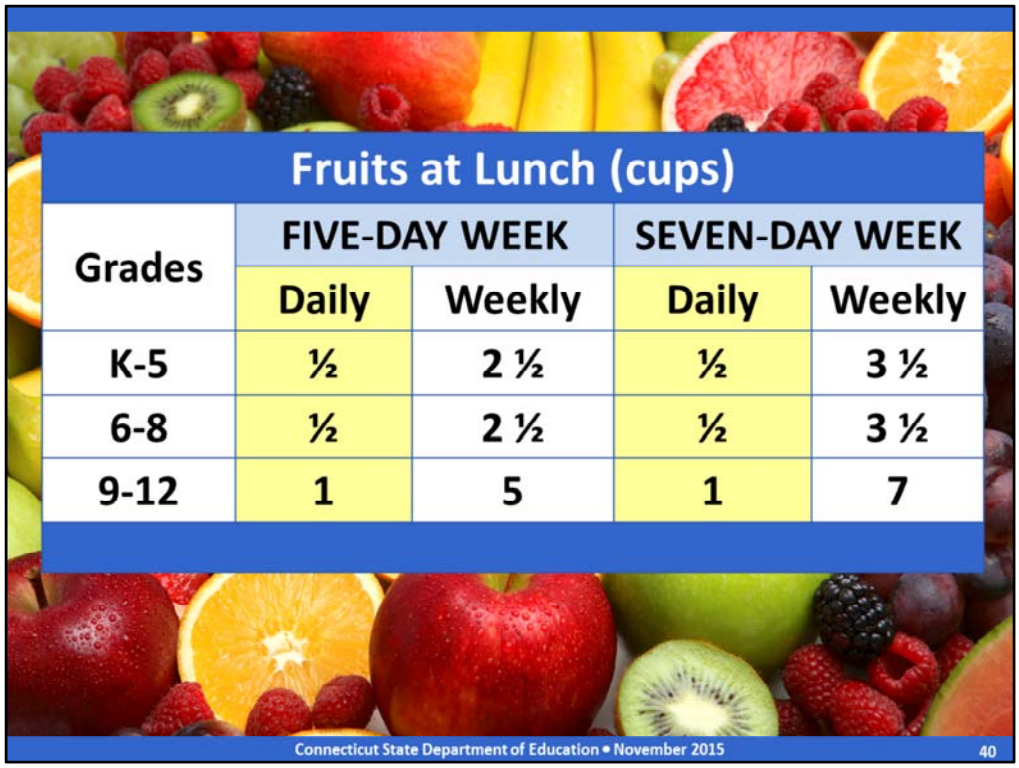
All APP, other than tofu and soy yogurt, must meet the criteria specified in the USDA federal regulations for school meals (Appendix A to Part 210 of the NSLP). We will not review this information today, as the requirements are complicated. However, the takeaway message is that school nutrition programs are responsible for **obtaining documentation from the manufacturer** for any APP used to meet the meat/meat alternates component.

Products that are CN labeled will provide information on how APP foods may credit toward the USDA meal patterns. Documentation can be provided by the manufacturer as a PFS or a signed letter from a company official attesting that the requirements are met.

For more information on APP, see the CSDE's handouts, "Requirements for Alternate Protein Products." It is available on the CSDE's Crediting Foods Web page, at the link indicated on the slide. This resource is also listed in the handout, "Resources for School Meals," which is included in your handout packet.


That concludes our review of the meat/meat alternates component.

**Ask participants:** Before we move on to the fruits component, are there any questions about the meat/meat alternates component?




This slide shows the meal pattern requirements for the fruits component. For lunch, schools must offer at least ½ cup of fruit daily for grades K-5 and 6-8, and at least 1 cup daily for grades 9-12.

The weekly requirements are simply the **sum** of the daily requirements.

- For a five-day week, weekly fruits must total at least 2 ½ cups for grades K-5 and 6-8, and at least 5 cups for grades 9-12.

- For a seven-day week, weekly fruits must total at least 3 ½ cups for grades K-5 and 6-8, and at least 7 cups for grades 9-12.

Note that the daily requirements are the same for both five-day weeks and seven-day weeks but the weekly amounts for seven-day weeks are more, since there are two more days in the week.

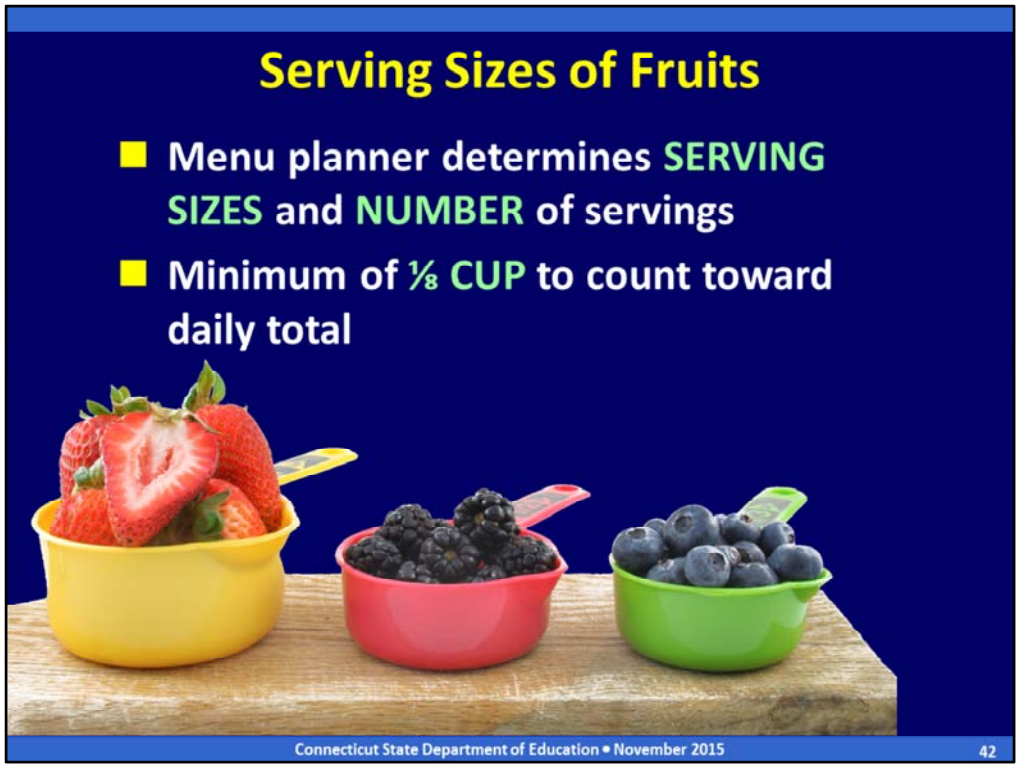
**INSTRUCTOR NOTES:** If there are no participants from RCCIs, do not review the information for seven-day weeks.


Fruit may be offered in several different forms. These forms include fresh, frozen with or without added sugar, canned in juice or light syrup, and dried.

Frozen fruits with added sugar should be used in moderation to keep the average school meal within the weekly calorie ranges.

**INSTRUCTOR NOTES:**
The USDA regulations previously required that that frozen fruit was without added sugar, with an exemption allowed through school year 2014-15. However, in January 2014, the USDA made this exemption permanent (79 FR 327). Frozen fruit can contain added sugar.

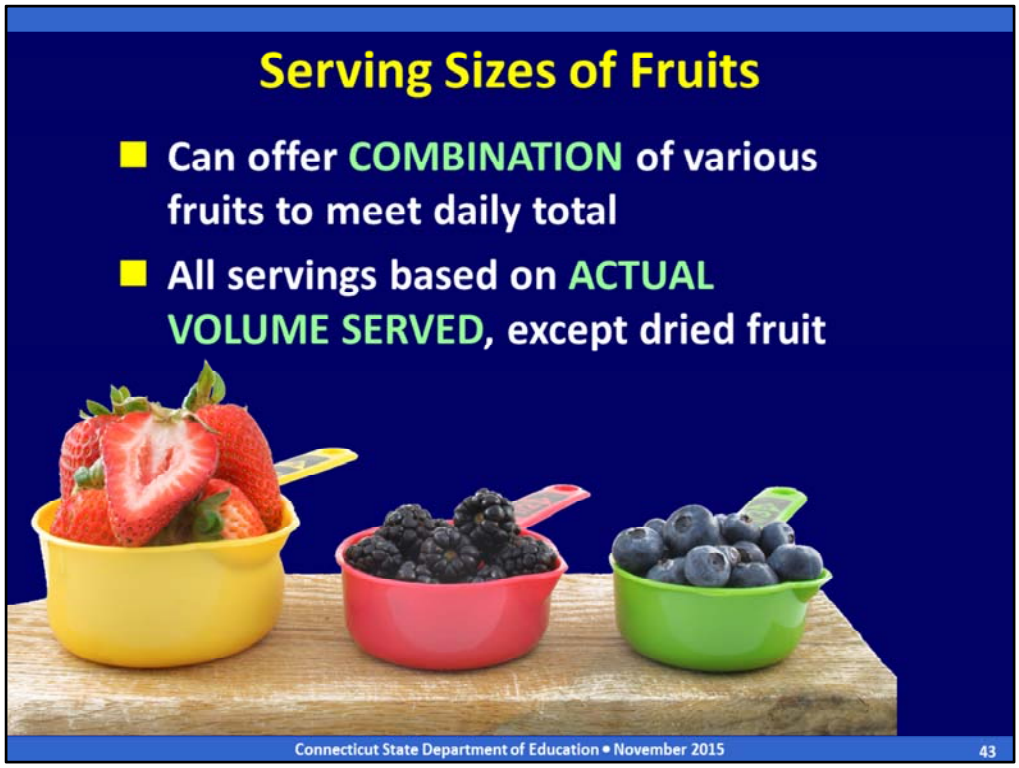
.




The menu planner determines the **serving sizes** and the **number** of servings of fruits needed to meet the meal pattern requirement (½ cup of fruits daily for grades K-5 and 6-8, and 1 cup of fruits daily for grades 9-12).

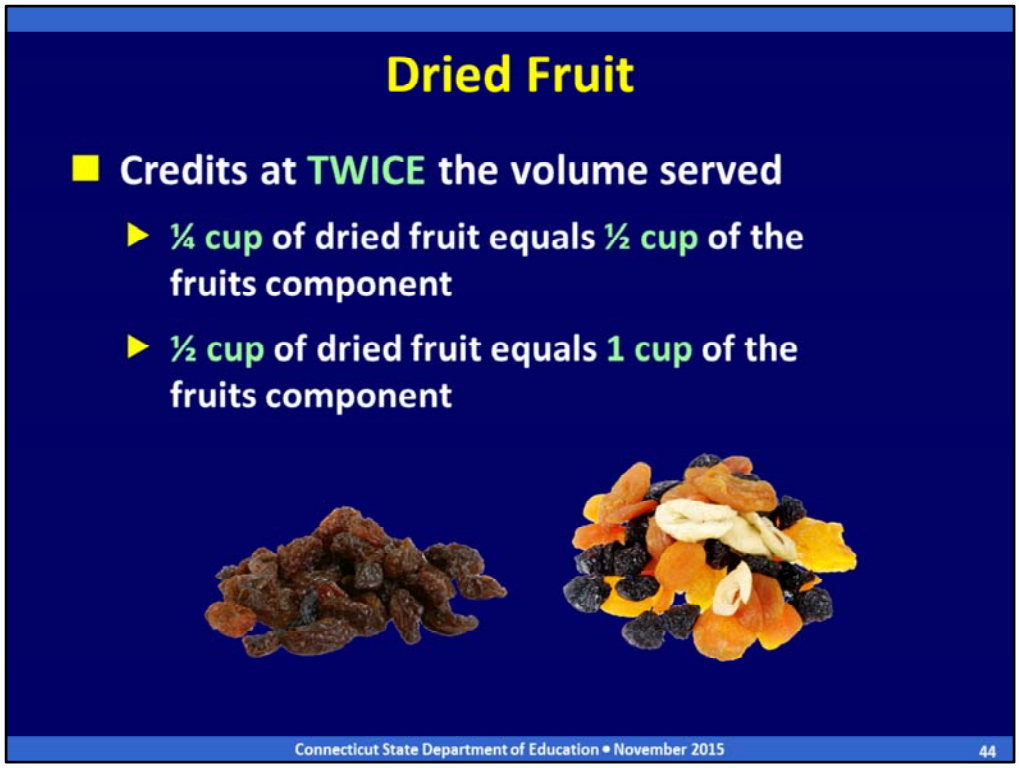
A minimum of ⅛ cup must be served to count toward the total requirements, with the rest of the minimum required portion coming from other fruits in the meal.

When we talk about offer versus serve later on, you will see that you may want to consider using ½-cup serving sizes as the basis for all fruits.

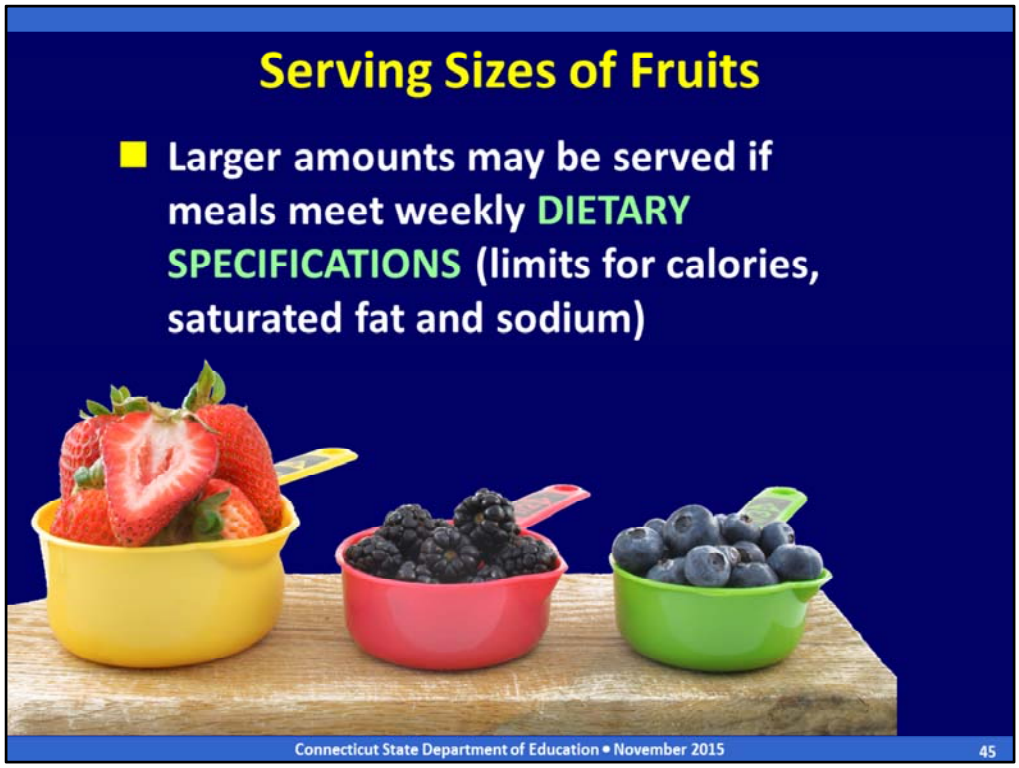



You can serve smaller portions of fruits to meet the total fruits requirement. For example, for grades K-5 and 6-8, you can choose to offer a combination of various fruits to total the required ½-cup serving of fruits, e.g., ¼ cup of peaches and ¼ cup of applesauce. The menu planner determines the number of fruits offered, keeping in mind that the smallest creditable amount is ⅛ cup.

All servings are based on the **actual volume served** except for dried fruit. Volume is the **measure** of the space of food in a container (e.g., tablespoons, cups, pints, gallons) versus **weight** (e.g., ounces and pounds).



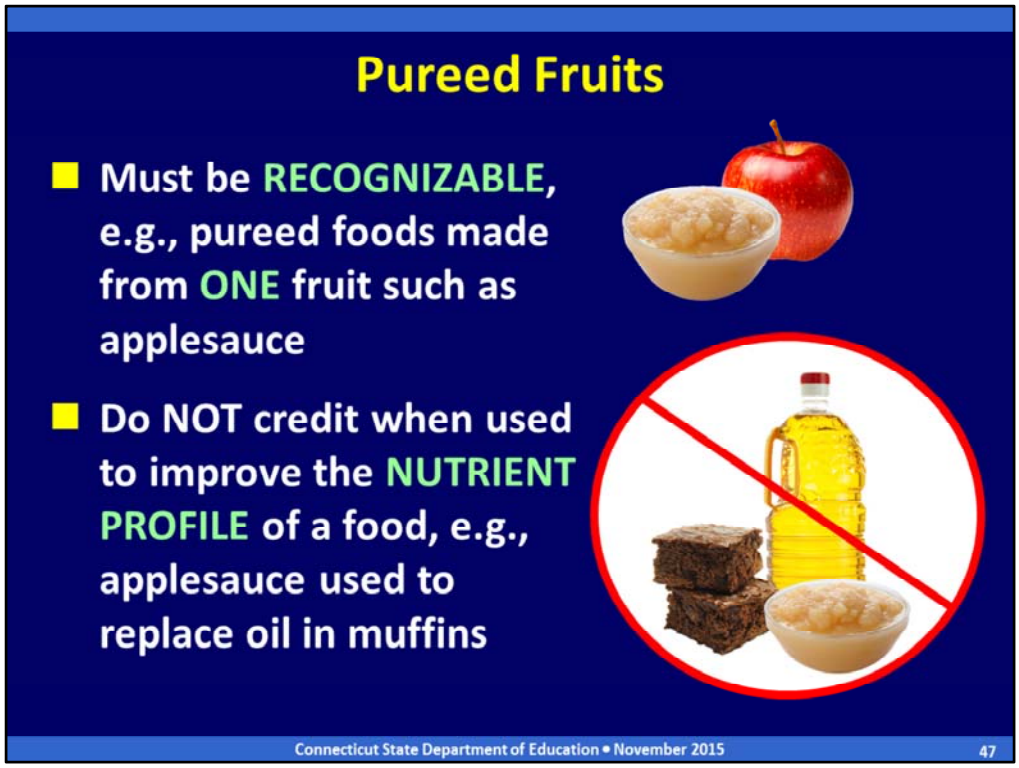

Dried fruit credits based on **twice** the volume served. For example, ¼ cup of dried fruit equals ½ cup of the fruit component and ½ cup of dried fruit equals 1 cup of the fruit component.




Larger amounts of fruits may be served if the average weekly meals meet the dietary specifications (nutrition standards) for the specific grade group, including limits for calories, saturated fat and sodium and zero trans fat.

We will review the dietary specifications for school breakfasts in more detail later on.


There are some additional considerations for determining how to count fruits toward the meal pattern requirements. Let's look at the requirements for pureed fruits, fruit juice and fruit smoothies.

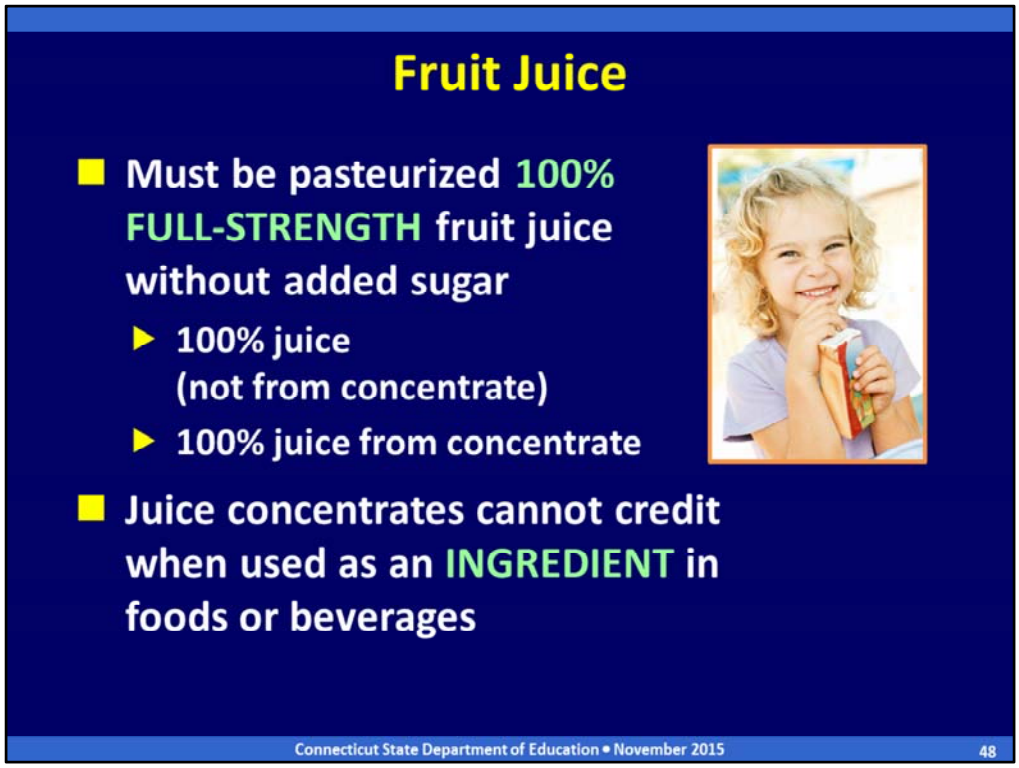



Pureed foods made from **one fruit** such as applesauce are recognizable creditable fruits and can count toward the fruits component if the serving size is at least ⅛ cup of fruit (the minimum creditable amount). Pureed fruit credits based on the **actual volume** served.

For example, we measure applesauce based on the amount that fills up ½ cup by volume, not the amount of apples needed to make the applesauce.

Pureed fruit does **not** credit toward the fruits component when it is used to improve the **nutrient profile** of a food, such as applesauce used to replace the oil in muffins.

The USDA emphasizes the importance of the **nutrition education aspect** of school nutrition programs, which includes the goal of helping children easily recognize the key food groups that contribute to a healthy meal.

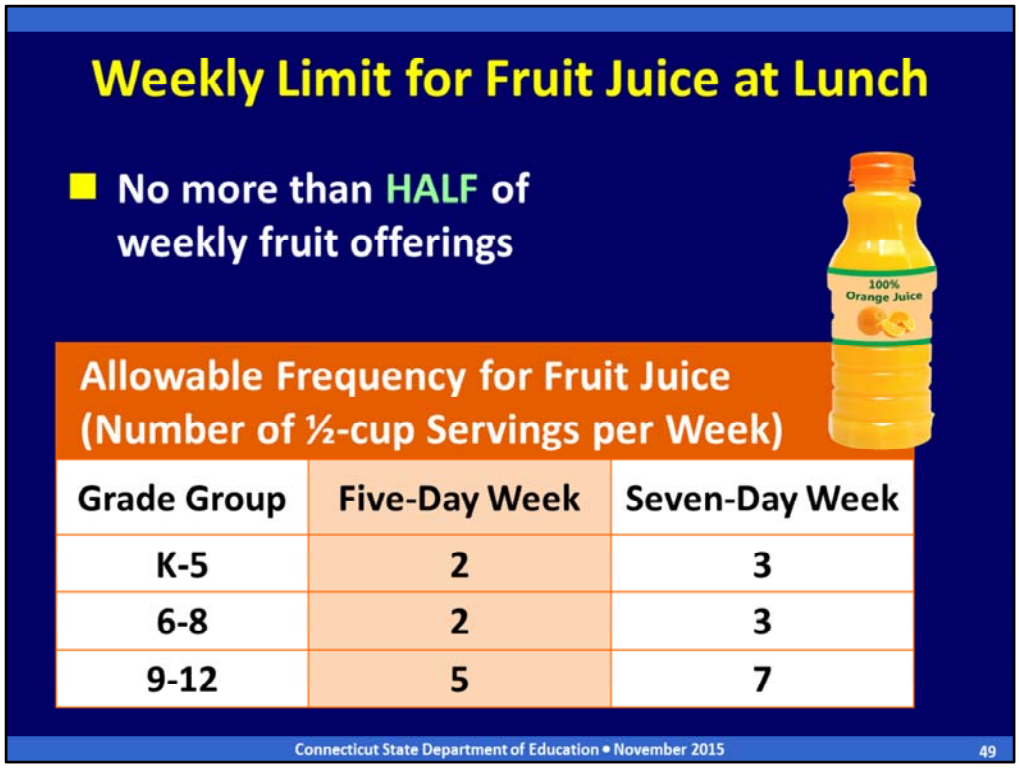



Fruit juice must be pasteurized 100 percent full-strength juice and can be either 100% juice not from concentrate or 100 percent juice from concentrate.

**Ask participants:** How do you know that a juice is 100 percent? Look for the name of the full-strength fruit juice on the label to include the words "juice" or "full-strength juice" or "100 percent juice" or "reconstituted juice" or "juice from concentrate."

Juice concentrates can be used only when reconstituted with water to 100 percent full-strength juice and can be credited in the forms of liquid or frozen juice only.

Juice **cannot** credit toward the fruits component when used as an ingredient in another food or beverage product. For example, gelatin made with juice concentrate and water does **not** credit as juice since the fruit juice is no longer in the form of liquid or frozen juice. The *Food Buying Guide* provides additional crediting information.

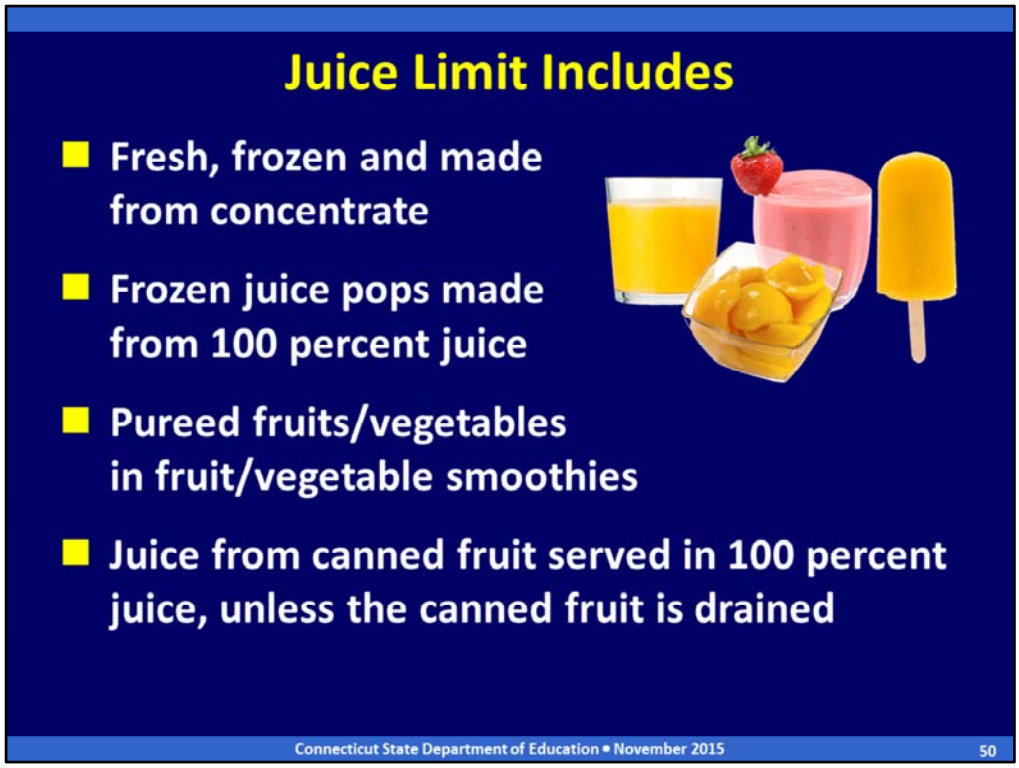



No more than half of weekly fruit offerings may be in the form of juice. This chart shows the maximum number of ½-cup servings (4 fluid ounces) of fruit juice per week for each grade group, based on the minimum daily fruits requirement of ½ cup for grades K-5 and 6-8 and 1 cup for grades 9-12.

This is an important point for menu planning because elementary (grades K-5) and middle (grades 6-8) schools **cannot offer a daily choice** of fruit juice. For these two grade groups, ½ cup of juice could be offered only **twice** per week for five-day weeks and **three** times per week for seven-day weeks.

High schools could offer ½ cup of fruit juice daily as part of assorted fruit choices for grades 9-12. However, remember that **whole fruits and vegetables** provide more nutrition than juice and should be served most often, as recommended by the Dietary Guidelines.

**INSTRUCTOR NOTES:** If there are no participants from RCCIs, do not review the information for seven-day weeks.



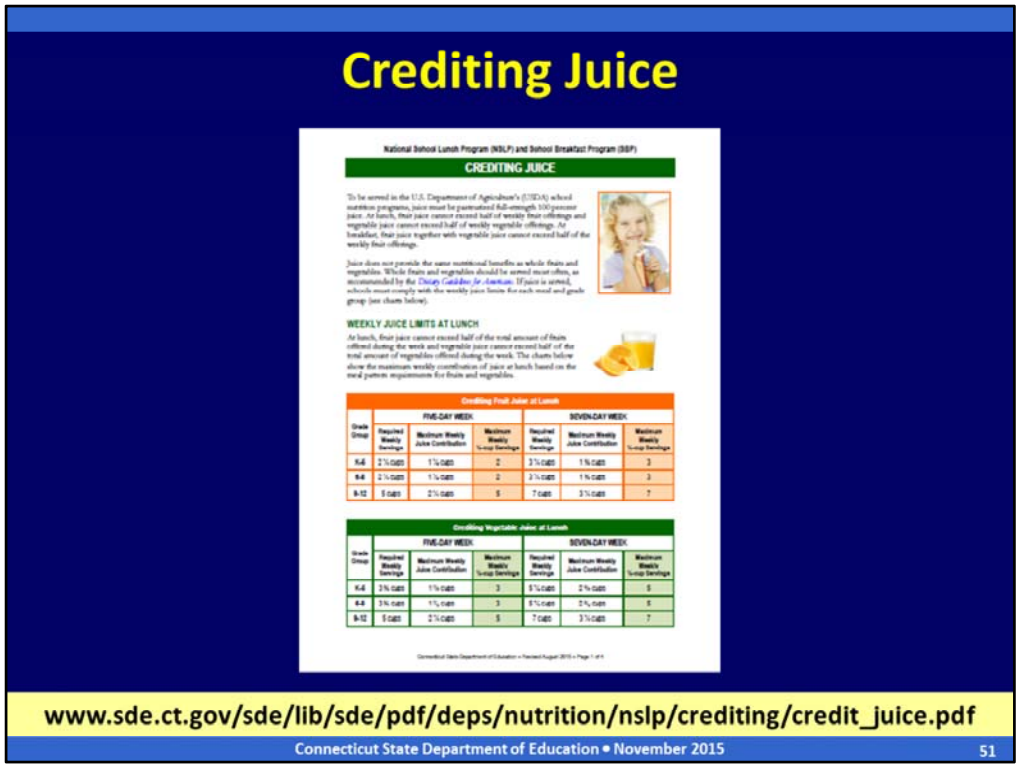

The weekly juice limit is calculated based on the amount of fruits that students are **allowed to select** at a given meal, regardless of the number of options or variety of fruits available.

Menu planners must calculate the menu's compliance with the weekly juice limit for fruits by dividing the **total weekly amount of fruit juice** that students can select by the **total weekly fruit offerings**.

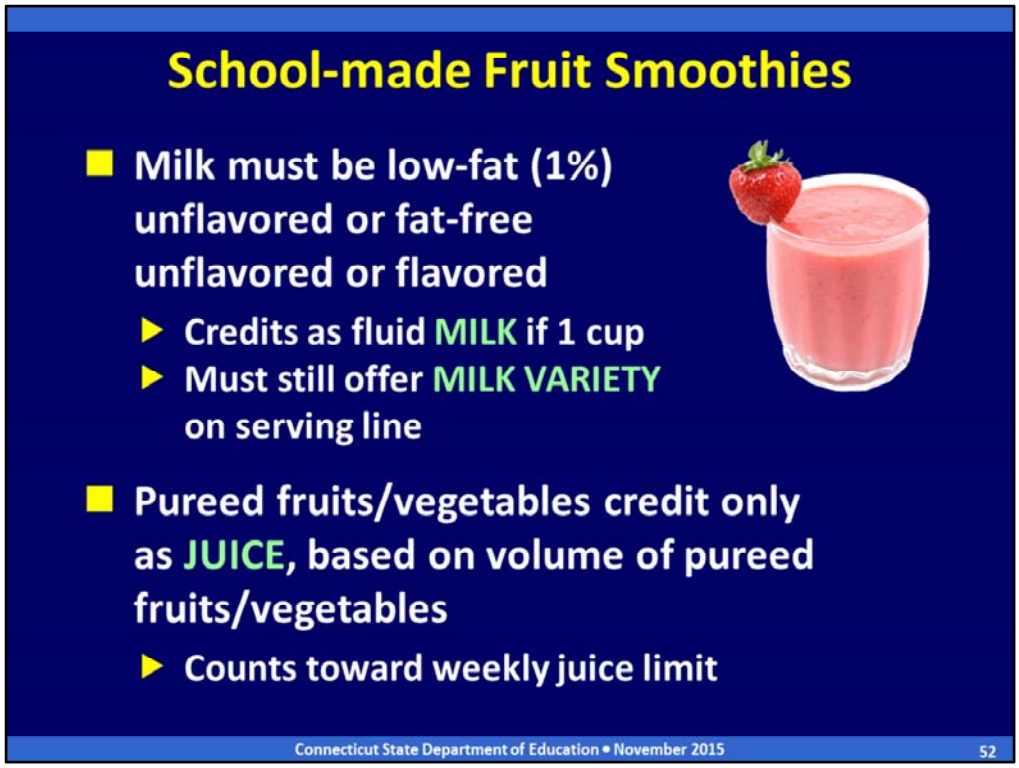
When calculating the total amount of juice that students can select, menu planners must count all sources of 100 percent juice served during the week. This includes:

- juice that is fresh, frozen or made from concentrate;
- frozen juice pops made from 100 percent juice;
- pureed fruits or vegetables in fruit/vegetable smoothies; and
- juice from canned fruit served in 100 percent juice, unless the canned fruit is drained.

Canned fruit in light syrup or water does not count toward the weekly juice limit.




The CSDE's Crediting Juice handout provides guidance on crediting juice in the NSLP and SBP. It is available on the CSDE's Meal Patterns Web page, at the link indicated on the slide.

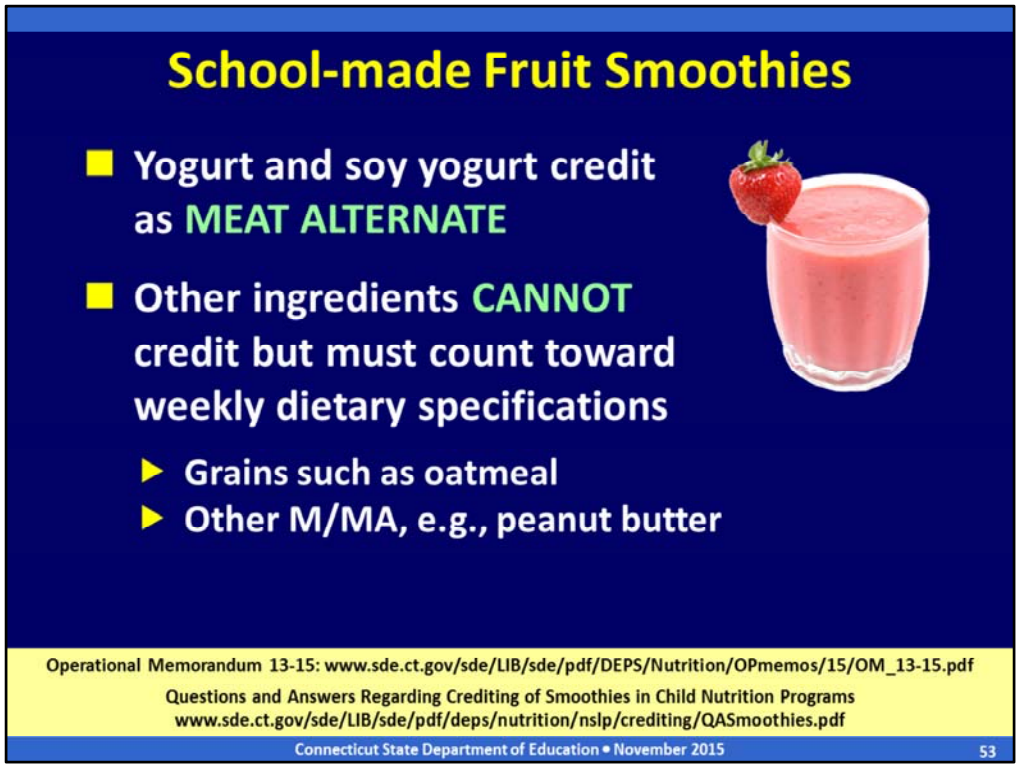



**Ask participants:** How many of you currently serve school-made smoothies as part of reimbursable school meals or would like to serve them in the future?

There are specific crediting requirements for school-made smoothies, which can be either pre-made or made to order. If **milk** is used in smoothies made with pureed fruits/vegetables, it must be low-fat (1%) unflavored or fat-free unflavored or flavored. The milk may credit toward the fluid milk requirement at lunch if it is the **full serving (1 cup). Amounts less than 1 cup do not credit.** When smoothies are offered on the serving line in school meal programs, the fluid milk component must also be offered on the serving line to meet the requirement for a variety of milk options for the NSLP.

Pureed fruits/vegetables in school-made smoothies credit only as **juice** toward the daily and weekly meal pattern requirements for fruits and vegetables. Crediting is based on the **actual volume** of pureed fruits/vegetables per serving, as documented by the **standardized recipe**. Menu planners must count pureed fruits/vegetables in beverages with all other juices toward the weekly juice limit: Fruit juice is no more than half of the weekly fruits component and vegetable juice is no more than half of the weekly vegetables component.

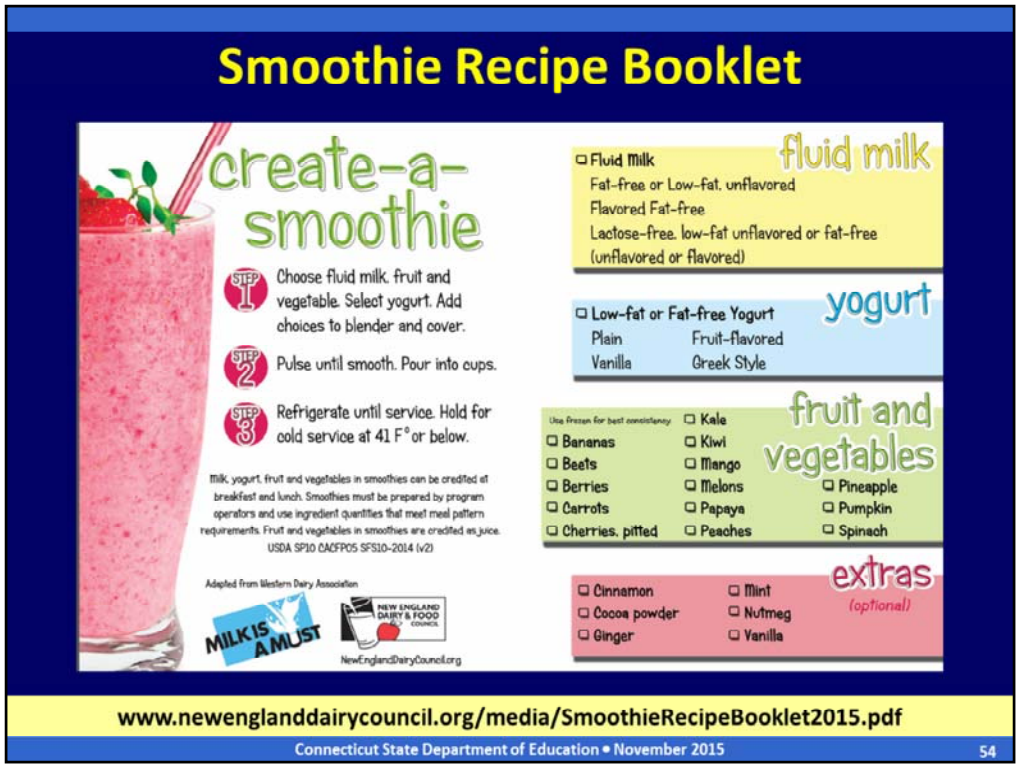
**INSTRUCTOR NOTES:** If no one serves smoothies as part of reimbursable meals, skip the next three slides on smoothies and let participants know they can refer back to these slides if they choose to serve smoothies in the future. CSDE Operational Memorandum 13-15, February 10, 2015, describes the requirements for crediting smoothies. It is available on the CSDE's Operational Memo Web page, at the link indicated on the slide.



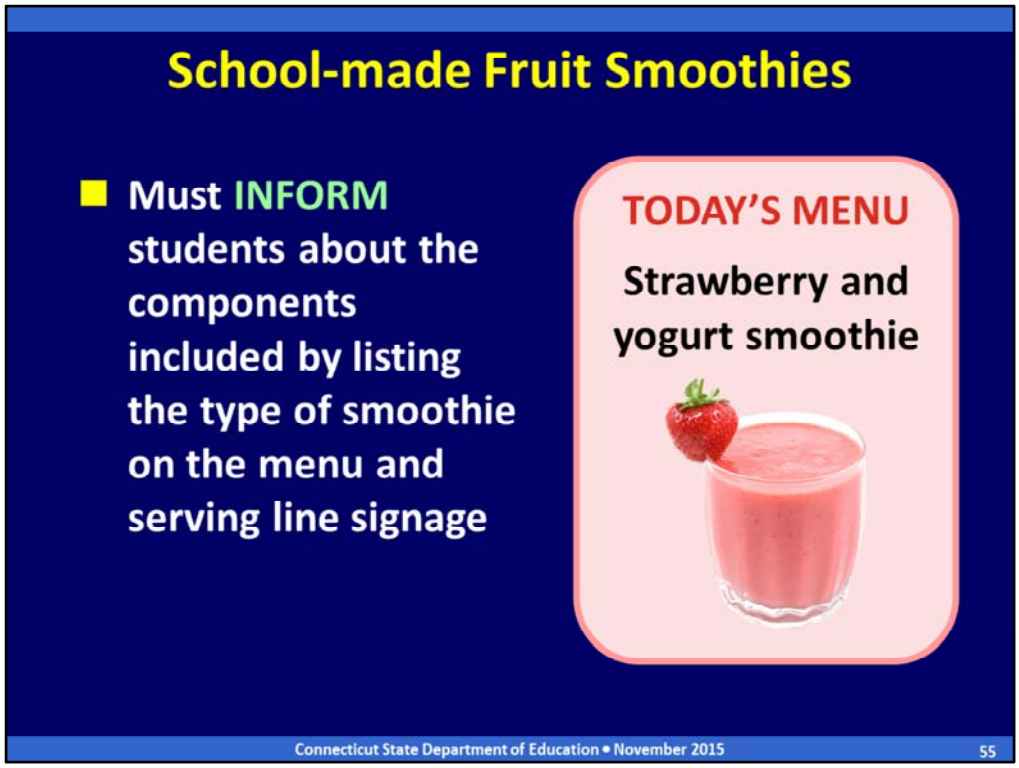

Yogurt and soy yogurt in school-made smoothies credit as a meat alternate at **breakfast and lunch**.

Grains and meat/meat alternates (except yogurt during breakfast service) **cannot** credit when served in smoothies.

Schools can include additional ingredients in smoothies such as grains (e.g., oatmeal) and meat/meat alternates (e.g., peanut butter) to improve flavor and consistency. While these ingredients cannot count toward the meal pattern requirements they must count toward the dietary specifications. They must contain zero trans fat and their inclusion cannot cause the menu to exceed the average weekly limits for calories, saturated fat and sodium.

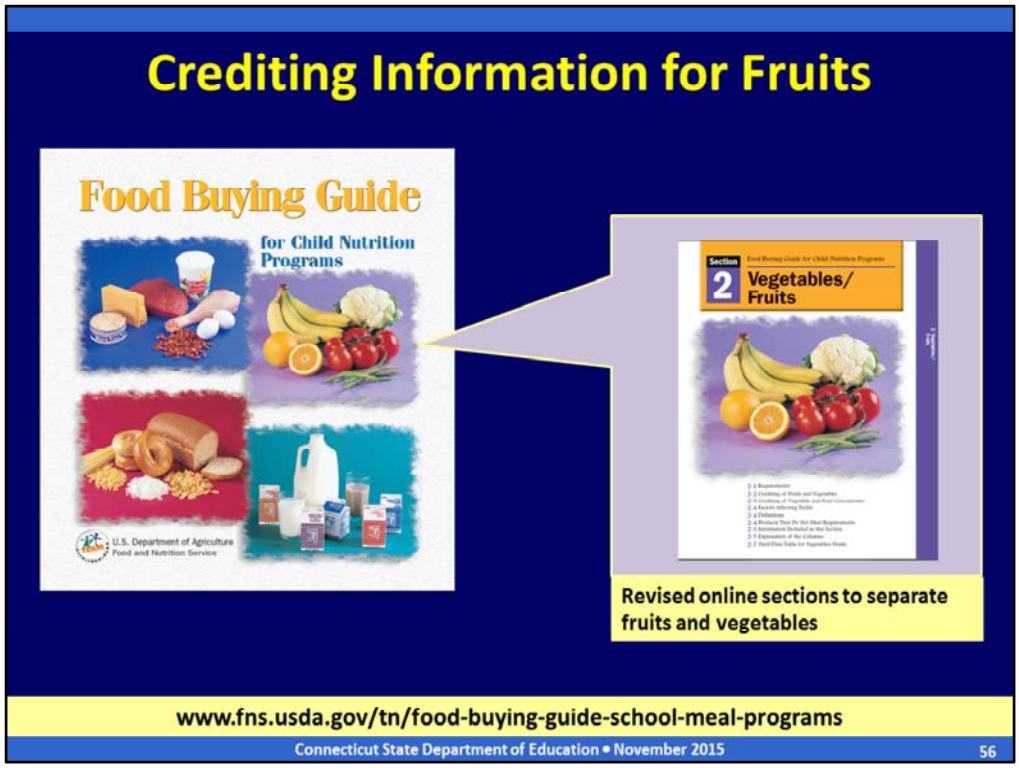



The New England Dairy & Food Council (NEDFC) has a smoothie recipe booklet with useful information and recipes for creating your own school-make smoothies. You can download this information from the link indicated on this slide.




The school meal regulations require schools to identify the food components offered to students. Schools serving smoothies should inform students about the components included by listing the type of smoothie on the menu and serving line signage, e.g., "strawberry and yogurt smoothie."

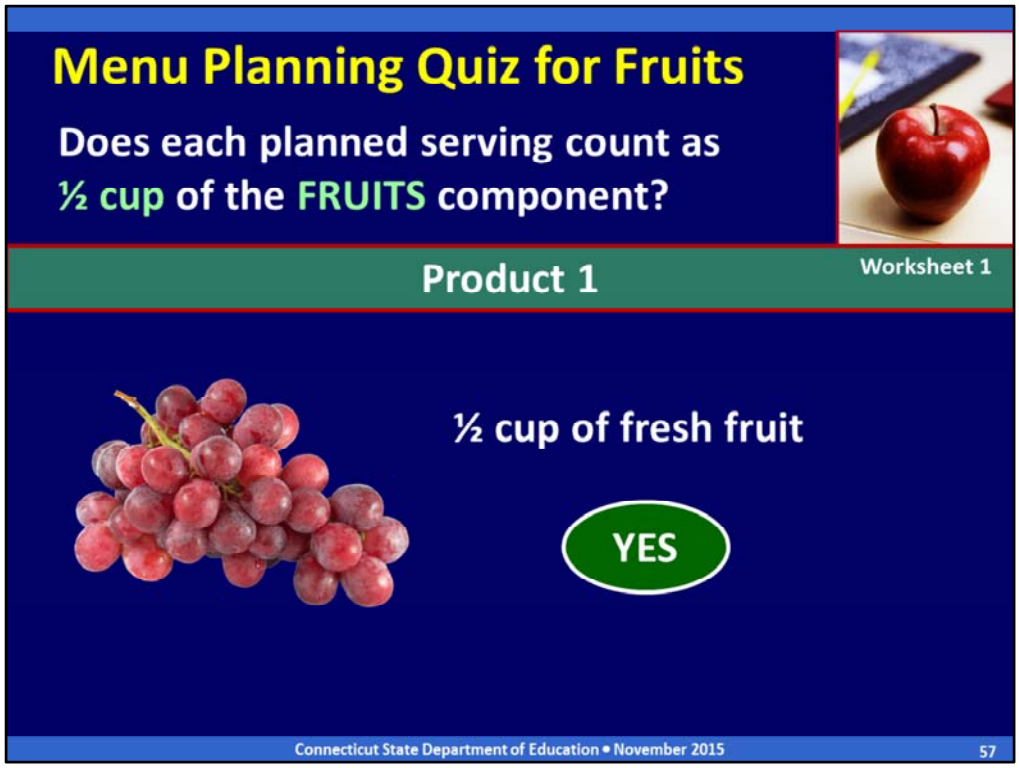
**INSTRUCTOR NOTES:**
Commercial smoothies do not meet the USDA requirements for fluid milk or yogurt because they do not comply with the FDA's standard of identity for milk or yogurt. Commercial smoothies made with **pureed fruit** may credit only toward the **fruits** component, counting only as juice. The product label should include a statement regarding the "percent juice content," which is required by the Food and Drug Administration (FDA) for beverages made with fruit puree.




Menu planners should use the USDA's *Food Buying Guide for Child Nutrition Programs* to determine how to credit fruits.

**Ask participants:** For example, how do you know how much of an orange to serve to provide ½ cup of fruit? If you put orange wedges in a 5.5-ounce souffle cup you are NOT meeting the ½-cup requirement unless you are serving the **entire** orange and it is the correct size.

One orange is not necessarily ½ cup of fruit. It depends on the size of the fruit. The *Food Buying Guide* tells us that a 138-count orange equals ½ cup of fruit and a 125-count orange or 113-count orange equals 5/8 cup of fruit. The *Food Buying Guide* also tells us that there is no whole orange that provides a full 1 cup of fruit.

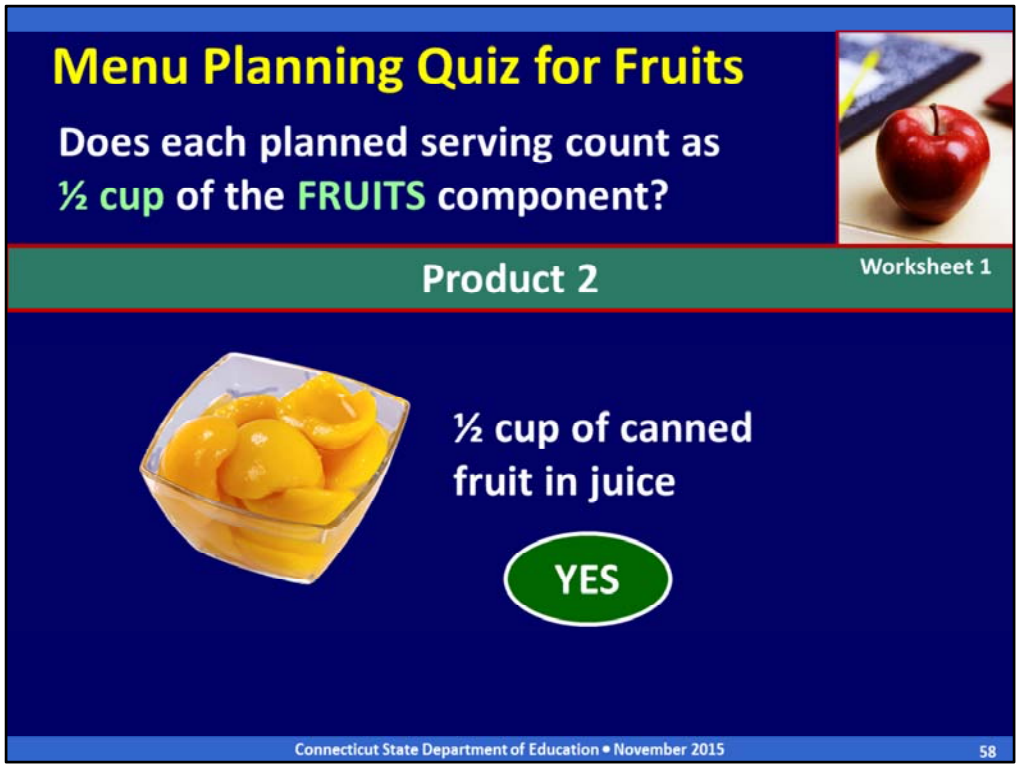


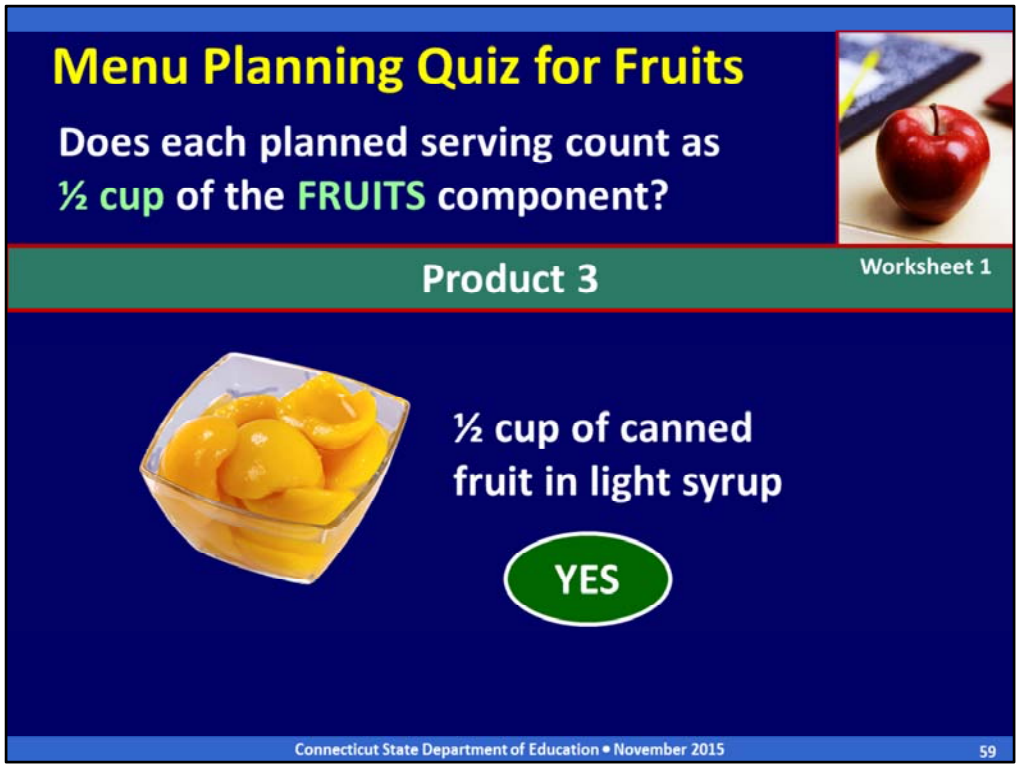

Take out worksheet 1 – Menu Planning Quiz for Fruits and Vegetables. For this activity, we are only working with part 1 (fruits). We will get to part 2 (vegetables) later on.
We will take this quiz together as a group.

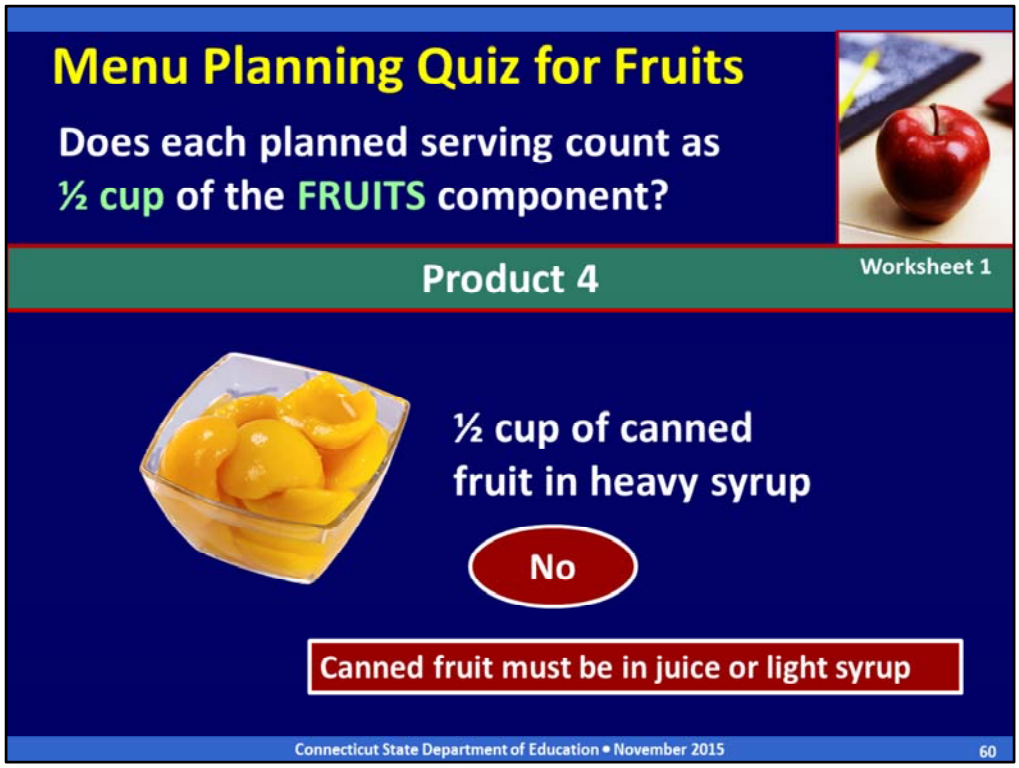
For each ½-cup serving of fruit listed, indicate whether it counts as **½ cup** of fruit.

**INSTRUCTOR NOTES:**

- Do this activity with all participants together as one large group. Read each item, e.g., "1/2 cup of fresh fruit," then wait for participants to answer. After they have answered, click to bring in the answer on the slide.
- Refer to answer key for worksheet 1.


Menu Planning Quiz for Fruits
Does each planned serving count as
½ cup of the FRUITS component?
Product 2
Worksheet 1
½ cup of canned
fruit in juice
YES
Connecticut State Department of Education • November 2015
58


Menu Planning Quiz for Fruits
Does each planned serving count as
½ cup of the FRUITS component?
Product 3
Worksheet 1
½ cup of canned
fruit in light syrup
YES
Connecticut State Department of Education • November 2015
59


Menu Planning Quiz for Fruits
Does each planned serving count as
½ cup of the FRUITS component?
Product 4
Worksheet 1
½ cup of canned
fruit in heavy syrup
No
Canned fruit must be in juice or light syrup
Connecticut State Department of Education • November 2015
60

# Menu Planning Quiz for Fruits

Does each planned serving count as ½ cup of the FRUITS component?

## Product 5

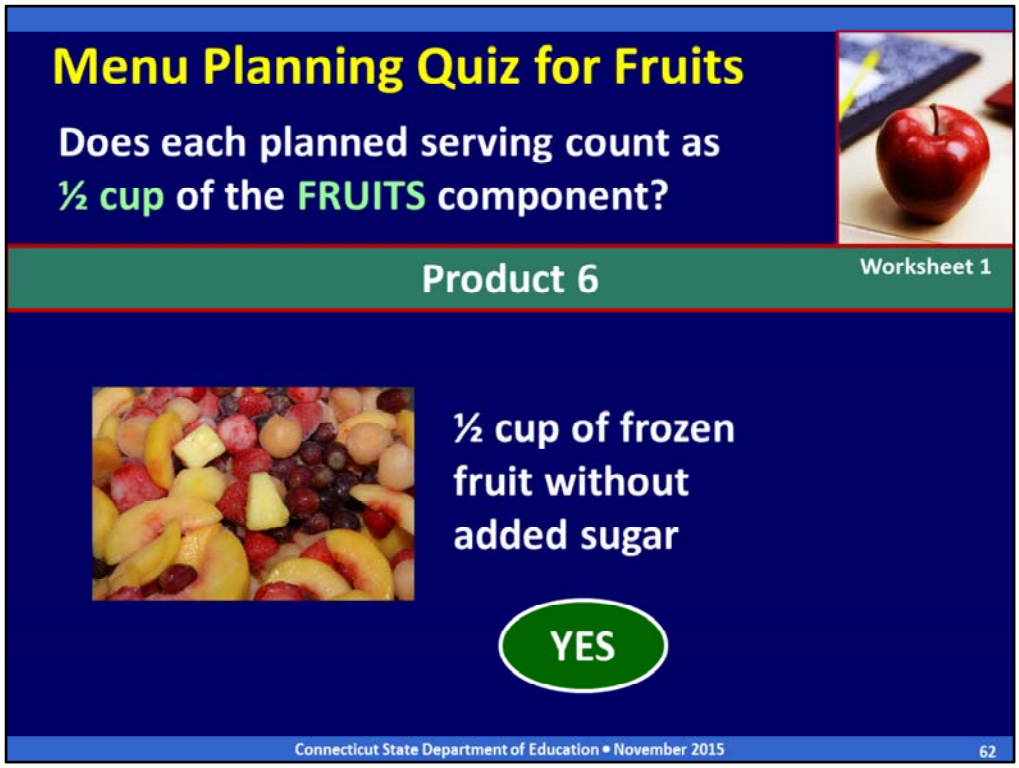
Worksheet 1

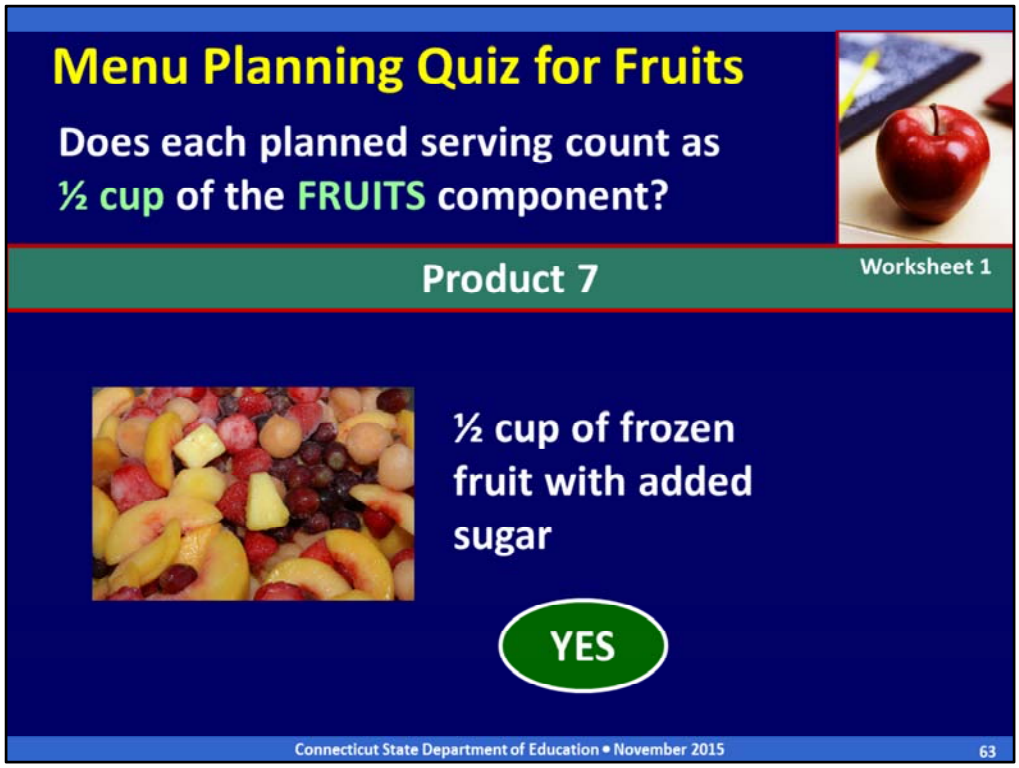
½ cup of dried fruit

**No**

Dried fruit counts as TWICE the volume served (½ cup equals 1 cup)

Connecticut State Department of Education • November 2015 61


Menu Planning Quiz for Fruits
Does each planned serving count as
½ cup of the FRUITS component?
Product 6
Worksheet 1
½ cup of frozen fruit without added sugar
YES
Connecticut State Department of Education • November 2015
62


Menu Planning Quiz for Fruits
Does each planned serving count as
½ cup of the FRUITS component?
Product 7
Worksheet 1
½ cup of frozen fruit with added sugar
YES
Connecticut State Department of Education • November 2015
63

## Menu Planning Quiz for Fruits

Does each planned serving count as ½ cup of the FRUITS component?

**Product 8**

Worksheet 1

½ cup of fruit juice

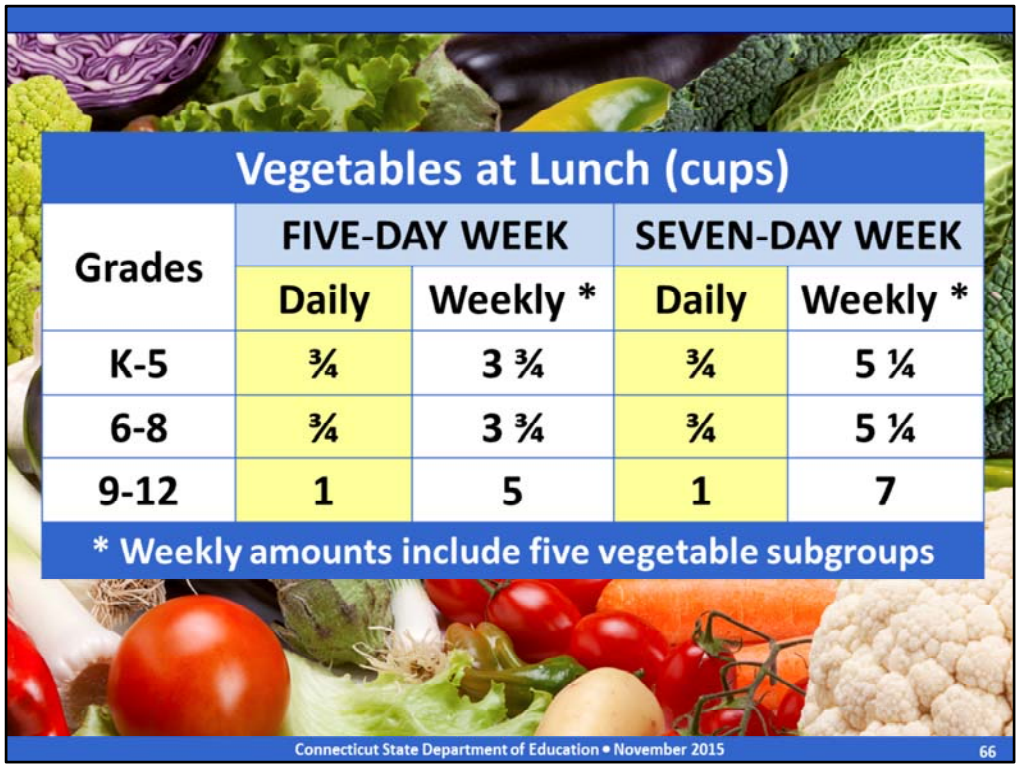
YES

However, the combined total of all fruit juice cannot be more than HALF of the weekly fruits component

Connecticut State Department of Education • November 2015 64


The next food component we will discuss is vegetables.

**Ask participants:** Before we begin the vegetables component, are there any more questions about the fruits component?




This slide shows the meal pattern requirements for vegetables. As you can see, schools must offer at least ¾ cup of vegetables daily for grades K-5 and 6-8, and at least 1 cup daily for grades 9-12.

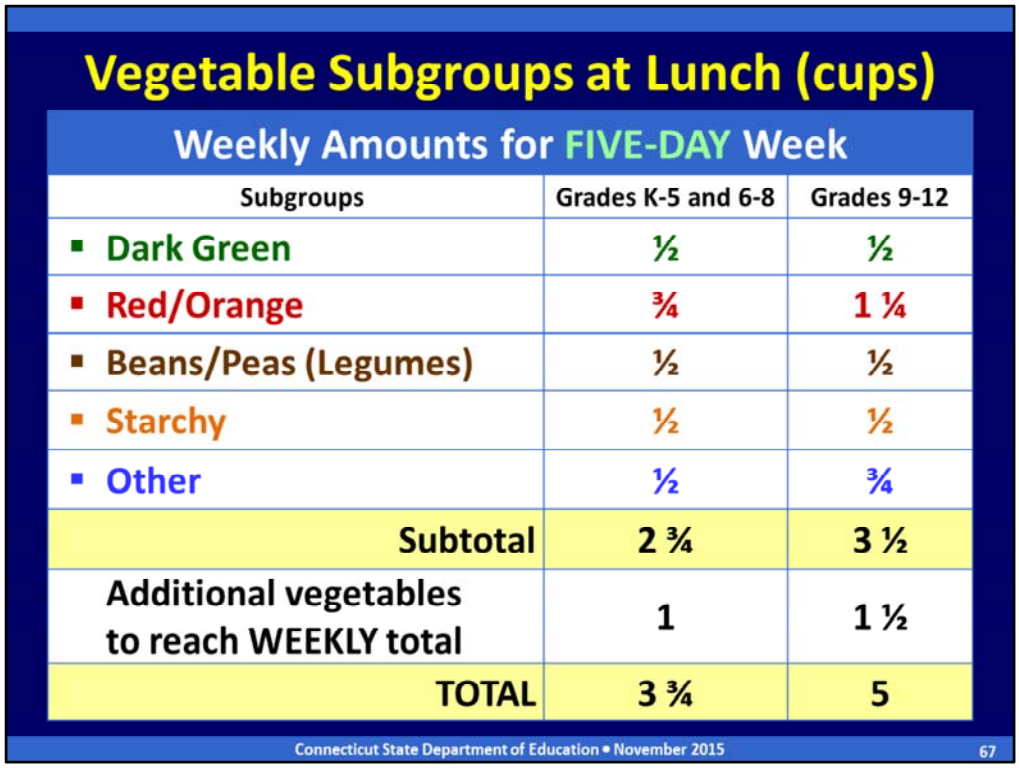
The weekly requirements are simply the **sum** of the daily requirements.

- For a five-day week, weekly vegetables must total at least 3 ¾ cups for grades K-5 and 6-8, and at least 5 cups for grades 9-12.

- For a seven-day week, weekly vegetables must total at least 5 ¼ cups for grades K-5 and 6-8, and at least 7 cups for grades 9-12.

Note that the daily requirements are the same for both five-day weeks and seven-day weeks but the weekly amounts for seven-day weeks are more, since there are two more days in the week.

**INSTRUCTOR NOTES:** If there are no participants from RCCIs, do not review the information for seven-day weeks.



## Vegetable Subgroups at Lunch (cups)

**Weekly Amounts for FIVE-DAY Week**

| Subgroups | Grades K-5 and 6-8 | Grades 9-12 |
|---|---|---|
| ▪ Dark Green | ½ | ½ |
| ▪ Red/Orange | ¾ | 1 ¼ |
| ▪ Beans/Peas (Legumes) | ½ | ½ |
| ▪ Starchy | ½ | ½ |
| ▪ Other | ½ | ¾ |
| Subtotal | 2 ¾ | 3 ½ |
| Additional vegetables to reach WEEKLY total | 1 | 1 ½ |
| TOTAL | 3 ¾ | 5 |

Connecticut State Department of Education • November 2015 67

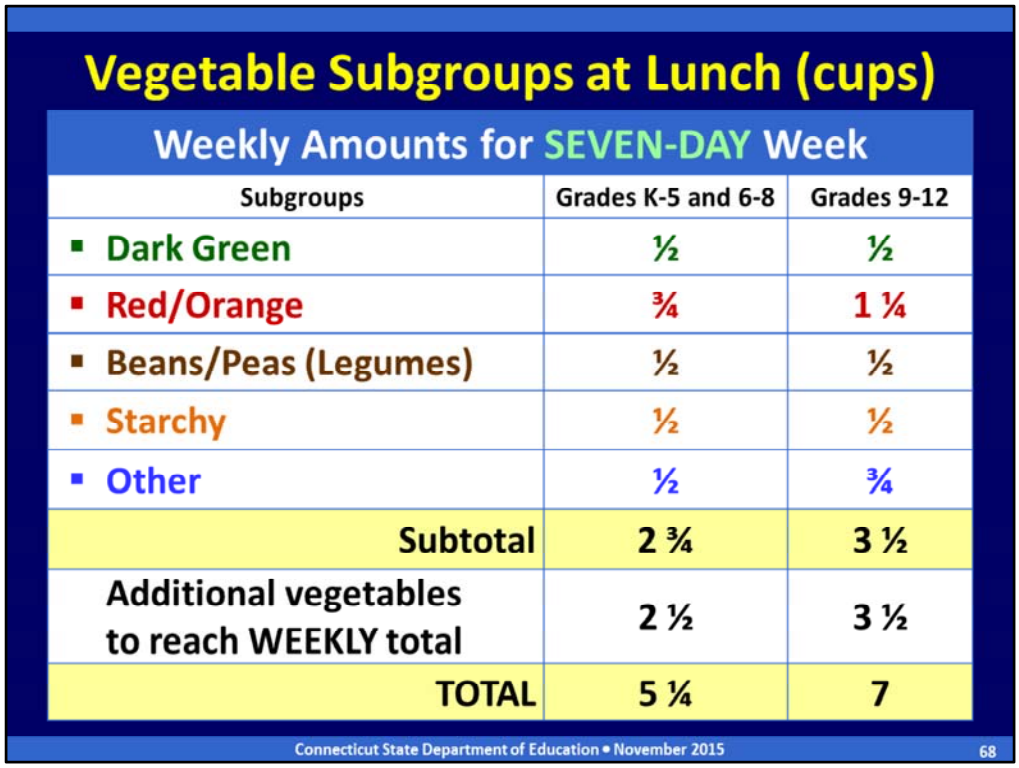
The meal pattern requires weekly minimums of five vegetable subgroups based on the classifications of the 2010 Dietary Guidelines. These requirements seek to give children access to a variety of vegetables throughout the week.

This chart shows the meal pattern requirements for vegetable subgroups for schools operating on a five-day week.

The vegetable subgroups include vegetables based on their **nutrient content**. The five subgroups are: dark green, red/orange, beans/peas (legumes), starchy and other. The "other" vegetable subgroup is a distinct grouping of food items, as classified by the 2010 Dietary Guidelines.

Over the course of the week, the minimum required amount of each subgroup must be met. These amounts apply to the **week** only; on any given day there are no specific subgroup requirements. It is important to note that if schools have multiple serving lines, all vegetable subgroups must be on all serving lines or easily accessible to students from all servings lines.

There is also a catch-all category for additional vegetables that can come from any subgroup to meet the weekly total over five days. We will review additional vegetables in a few minutes.



## Vegetable Subgroups at Lunch (cups)

### Weekly Amounts for SEVEN-DAY Week

| Subgroups | Grades K-5 and 6-8 | Grades 9-12 |
|---|---|---|
| ▪ Dark Green | ½ | ½ |
| ▪ Red/Orange | ¾ | 1 ¼ |
| ▪ Beans/Peas (Legumes) | ½ | ½ |
| ▪ Starchy | ½ | ½ |
| ▪ Other | ½ | ¾ |
| Subtotal | 2 ¾ | 3 ½ |
| Additional vegetables to reach WEEKLY total | 2 ½ | 3 ½ |
| TOTAL | 5 ¼ | 7 |

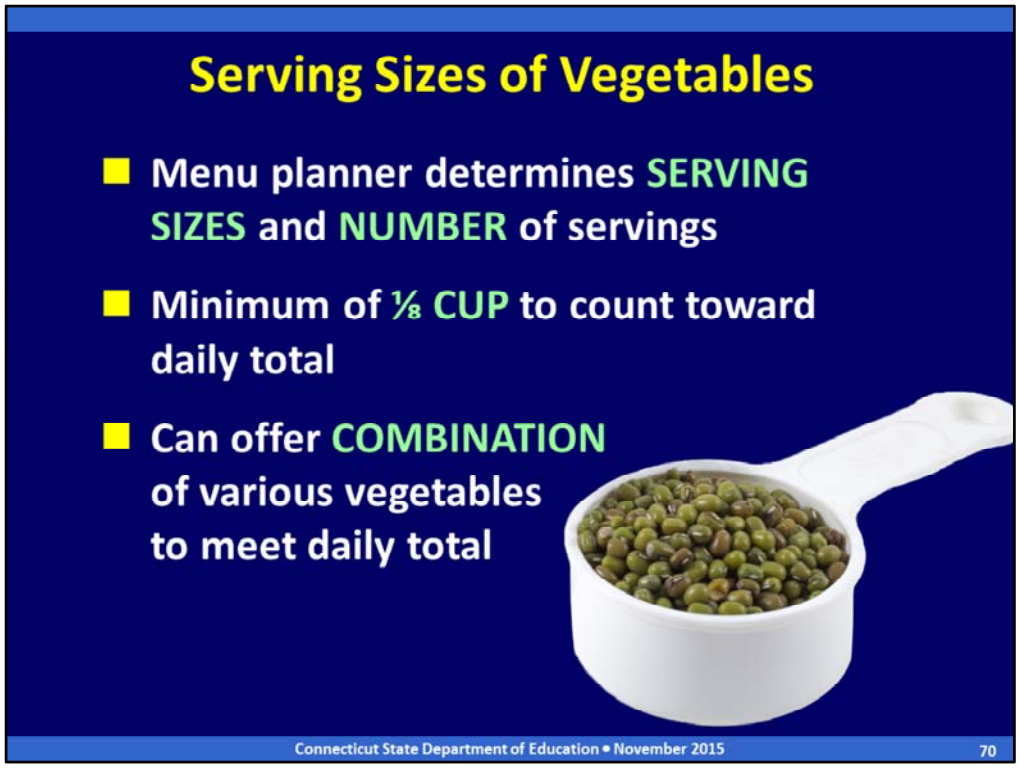
Connecticut State Department of Education • November 2015 68

This chart shows the meal pattern requirements for vegetable subgroups for schools operating on a seven-day week. The difference in the amounts of weekly vegetables between the seven-day week and the five-day week reflects the weekly total of "additional" vegetables for two more days. The vegetable subgroup requirements are the same for both five-day and seven-day weeks.

**INSTRUCTOR NOTES:** If there are no participants from RCCIs, do not review the information for seven-day weeks.


Schools may select from a variety of vegetable preparation methods including fresh, frozen and canned products.

However, menu planners need to consider the sodium content of canned vegetables as part of the overall reduction of sodium in school meals. Remember that the first sodium target took effect with school year 2014-15. We will look at the sodium limit requirement in more detail later on.



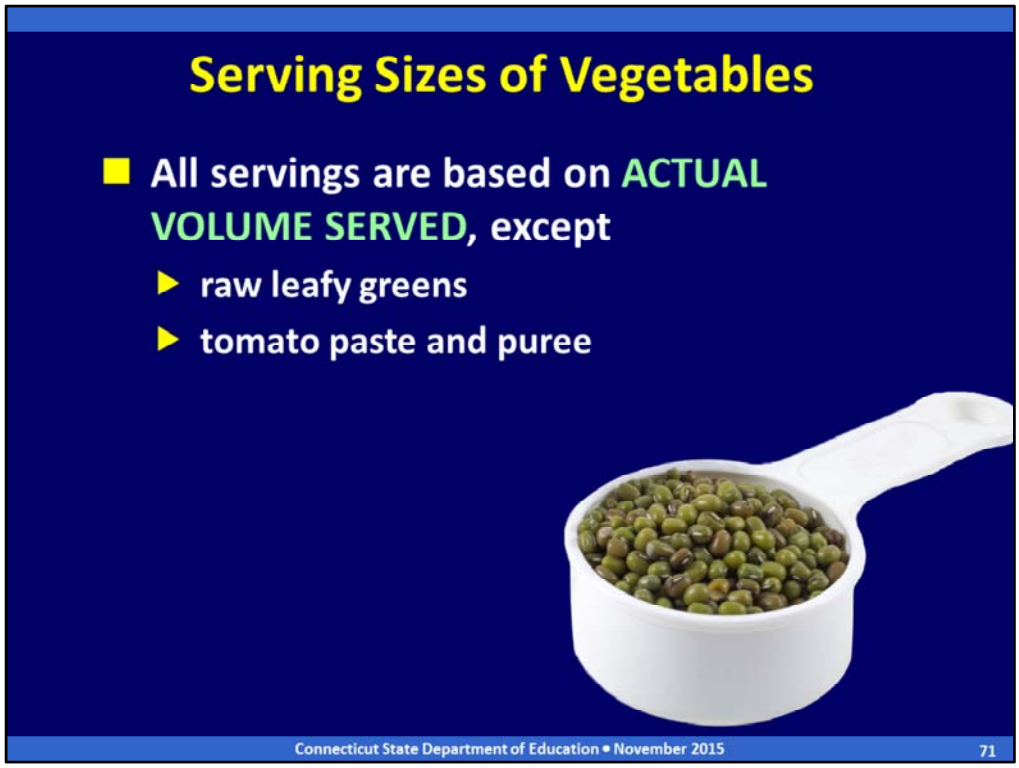

The menu planner determines the **serving sizes** and the **number** of servings of vegetables needed to meet the meal pattern requirements (¾ cup of vegetables daily for grades K-5 and 6-8, and 1 cup of vegetables daily for grades 9-12).

A minimum of ⅛ cup must be served to count toward the total requirements, with the rest of the minimum required portion coming from other vegetables in the meal.

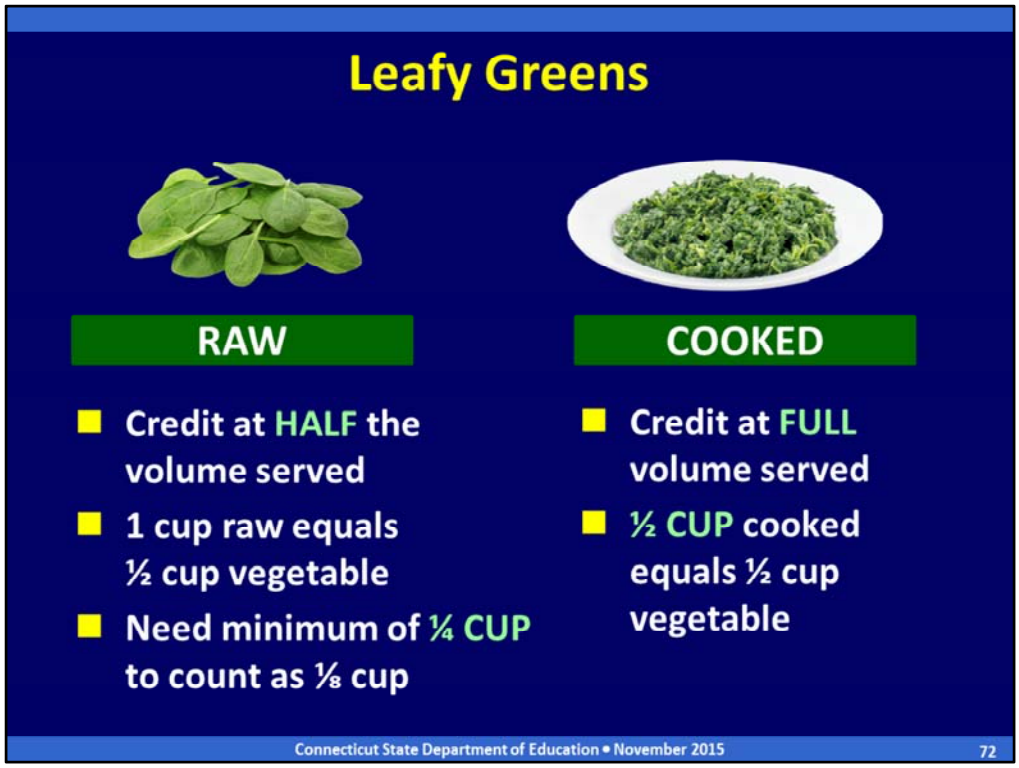
You can serve smaller portions of vegetables to meet the total vegetables requirement. For example, for grades K-5 and 6-8, you can choose to offer a combination of various vegetables to total the required ¾-cup serving of vegetables, e.g., ¼ cup of corn and ½ cup of peas. The menu planner determines the number of vegetables offered, keeping in mind that the smallest creditable amount is ⅛ cup.

However, ⅛ cup of vegetables alone without other accompanying vegetables is not enough to meet the vegetables component of the reimbursable meal. You must serve additional vegetables to meet the full required serving for each grade group.

When we talk about offer versus serve later on, you will see that you may want to consider using ½-cup serving sizes as the basis for all vegetables.



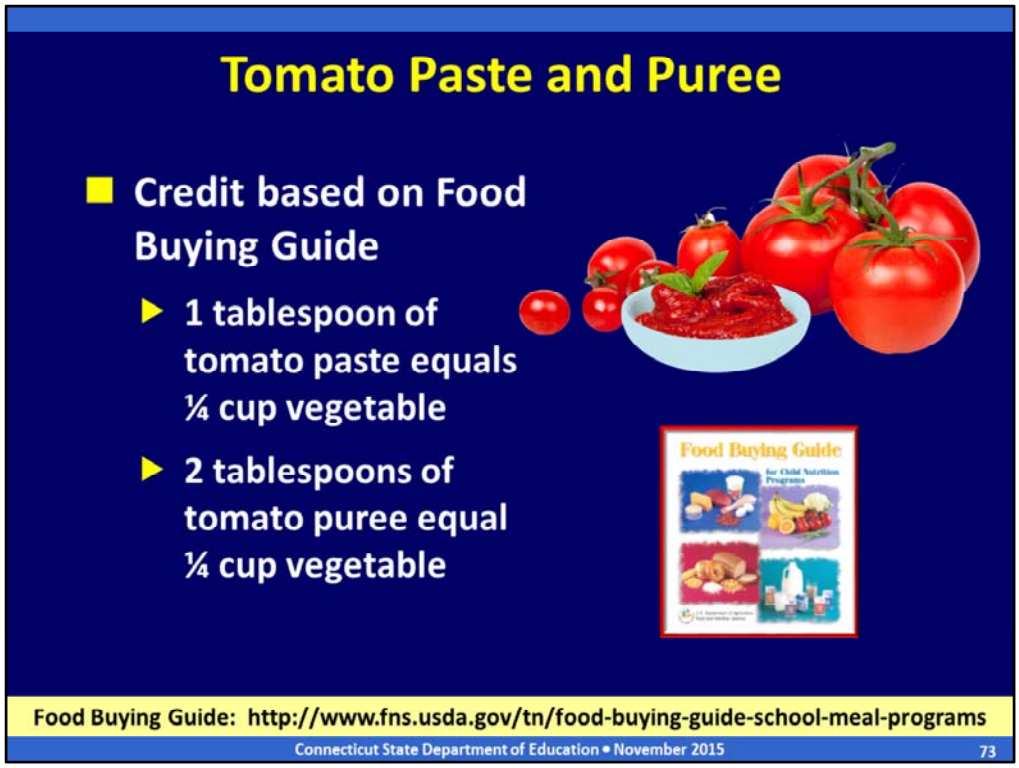

All vegetable servings are based on the **actual volume** (cups) served, except for raw leafy greens, and tomato paste and puree.




Raw and cooked leafy greens credit differently.

- Raw, leafy salad greens credit at **half** the volume served, which is consistent with the Dietary Guidelines for Americans. For example, ½ cup of romaine lettuce contributes ¼ cup toward the dark green vegetables subgroup.

- Cooked leafy greens such as sauteed spinach are credited by volume as served. For example, ½ cup of cooked spinach credits as ½ cup of dark green vegetables.




The USDA's *Food Buying Guide* indicates that 1 tablespoon of tomato paste equals ¼ cup vegetable and 2 tablespoons of tomato puree equal ¼ cup vegetable.

**Ask participants:** How many tablespoons are in ¼ cup?

There are 2 tablespoons in 1 ounce and 2 ounces in ¼ cup, so there are 4 tablespoons in ¼ cup.

When we measure volume, 4 tablespoons equal ¼ cup. However, these two foods credit based on the volume as if **reconstituted,** not the actual volume **served**.


The five vegetable subgroups are the same as the recommended subgroups in the 2010 Dietary Guidelines for Americans.

The subgroups include vegetables based on their **nutrient content**. The vegetables in each subgroup have similar nutrient content.

Color is a generally a guide to where a vegetable belongs, but does not always determine the subgroup. For example, broccoli and green beans are both green but broccoli is in the **dark green** subgroup and green beans are in the **"other"** subgroup because they provide different nutrients.

It is important to know what vegetables belong in each subgroup so the meal pattern is **planned** to meet the weekly requirements and appropriate **substitutions** can be made, if needed. For example, if a vegetable is missing from today's produce delivery, food service staff need to know what other vegetables are in the same subgroup so they can make an appropriate substitution.

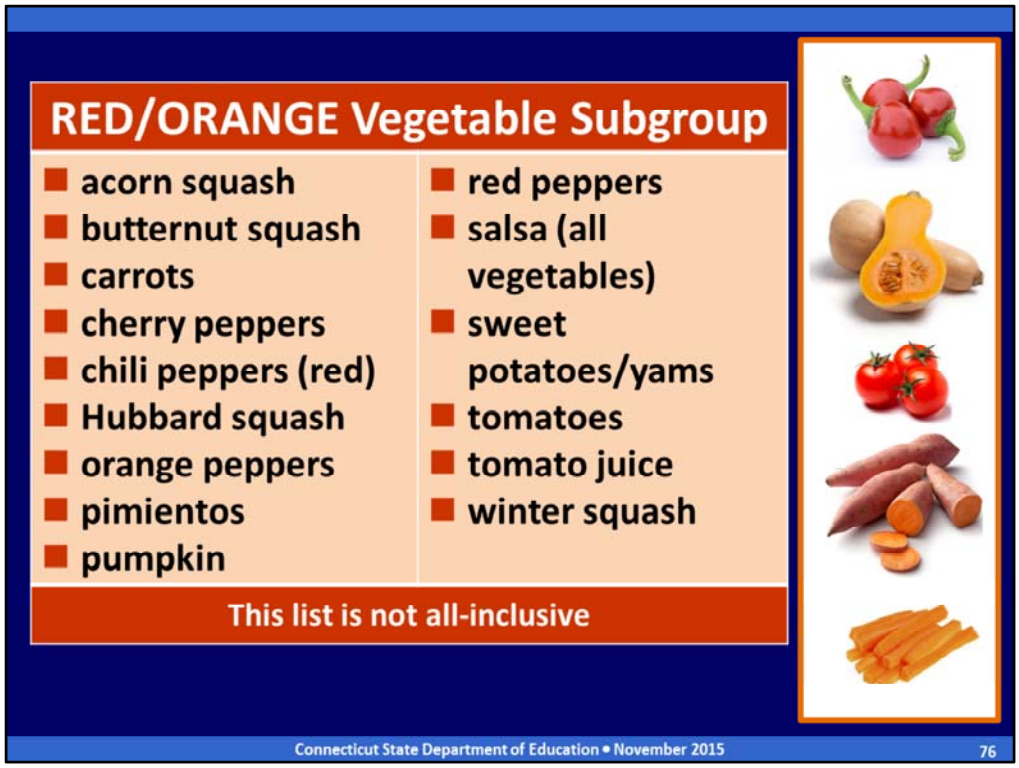
.


Let's take a quick look at each of the vegetable subgroups.

This slide shows some examples of vegetables from the dark green subgroup, such as spinach, broccoli, bok choy and dark green leafy lettuces.

**Ask participants:** What are some of the common dark green vegetables that you serve in your schools?

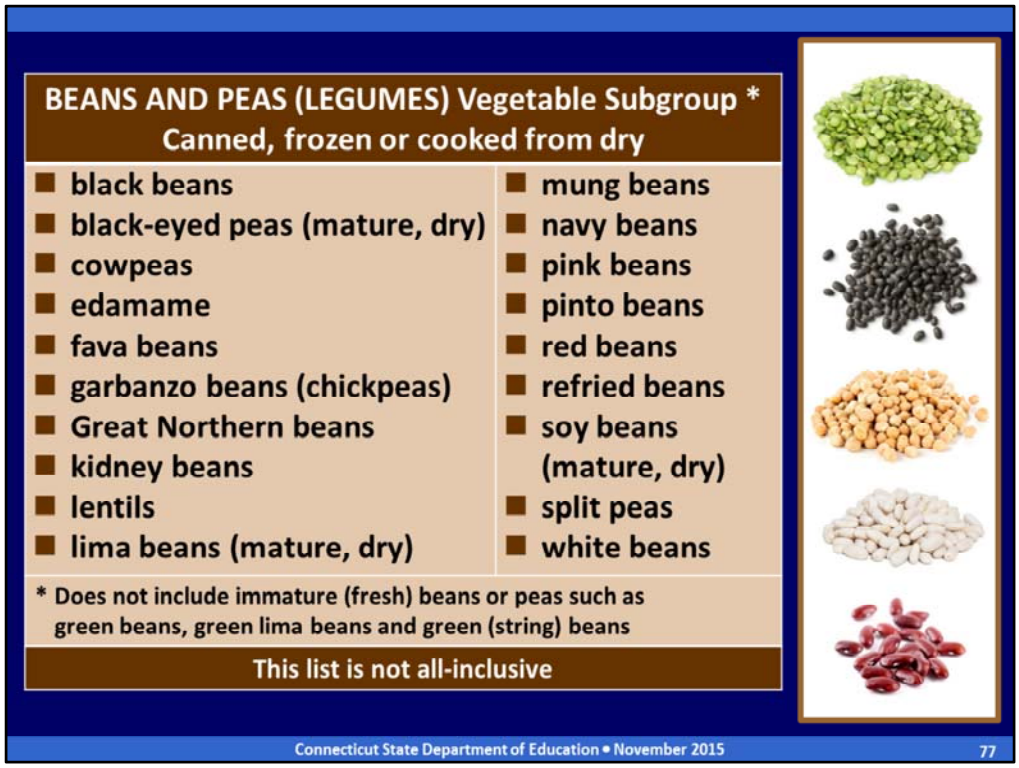
**INSTRUCTOR NOTES:** Mention just a few examples, such as the vegetables depicted in the photos (spinach, broccoli, bok choy and escarole)**.** Do not review all of the vegetables on the slide.




This slide shows some examples of vegetables from the red/orange subgroup, such as cherry peppers, butternut squash, tomatoes, sweet potato and carrots.

**Ask participants:** What are some of the common red/orange vegetables that you serve in your schools?

**INSTRUCTOR NOTES:** Mention just a few examples, such as the vegetables depicted in the photos (cherry peppers, butternut squash, tomatoes, sweet potato and carrots). Do not review all of the vegetables on the slide.

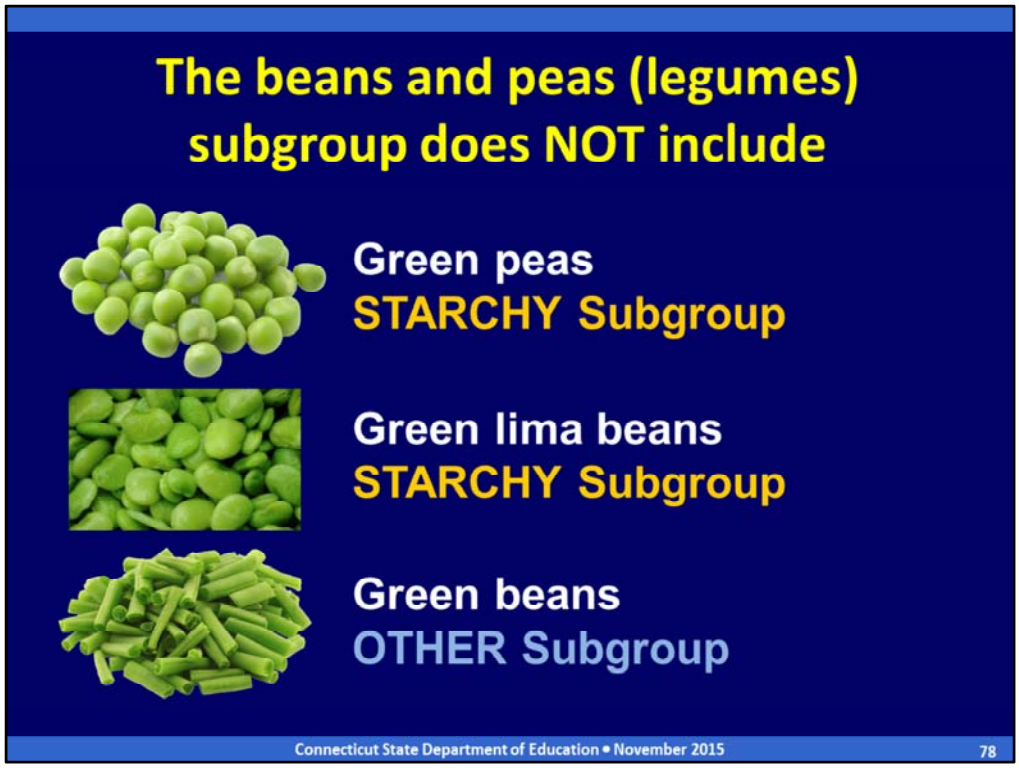



The beans and peas (legumes) subgroup includes all mature dry beans and peas. The term **"dry beans and peas"** refers to the harvesting process of allowing the bean or pea to mature or dry on the plant before harvesting; it does not refer to the "as purchased" form of the bean. Many canned or frozen beans or peas are actually dry beans and peas that have been cooked and canned or frozen, and are therefore acceptable for meeting criteria.

This slide shows some examples of vegetables from the beans and peas (legumes) subgroup, such as split peas, black beans, garbanzo beans (chick peas), navy beans and kidney beans.

**Ask participants:** What are some of the common legumes that you serve in your schools?

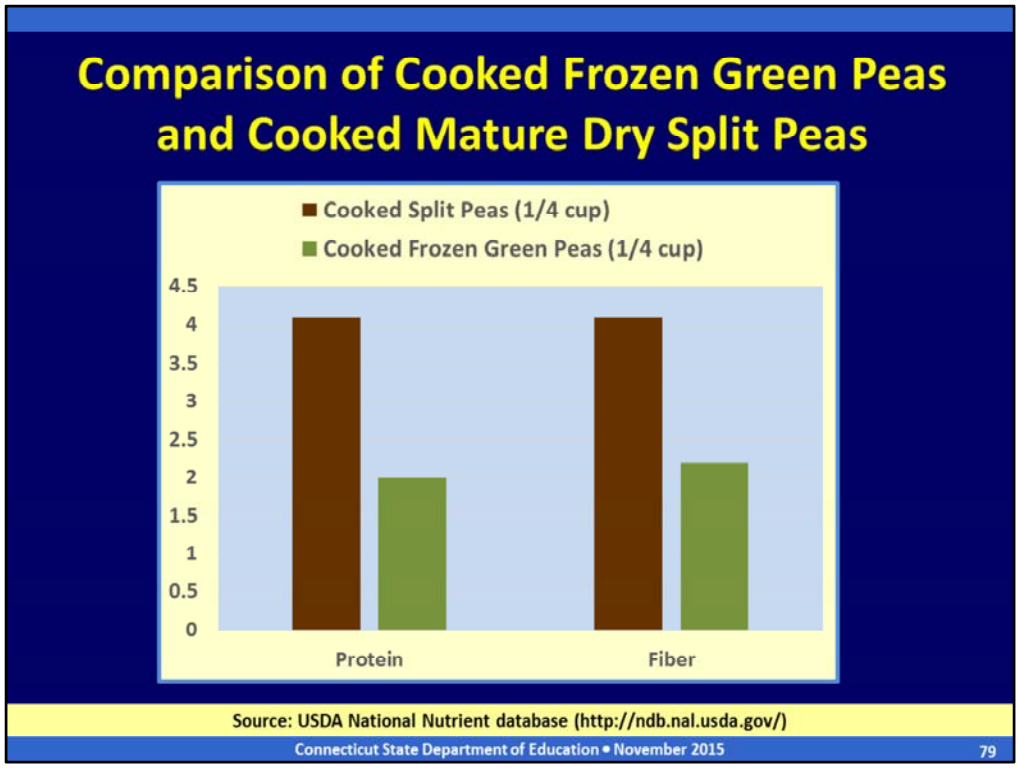
**INSTRUCTOR NOTES:** Mention just a few examples, such as the vegetables depicted in the photos (split peas, black beans, garbanzo beans (chick peas), navy beans and kidney beans). Do not review all of the vegetables on the slide.



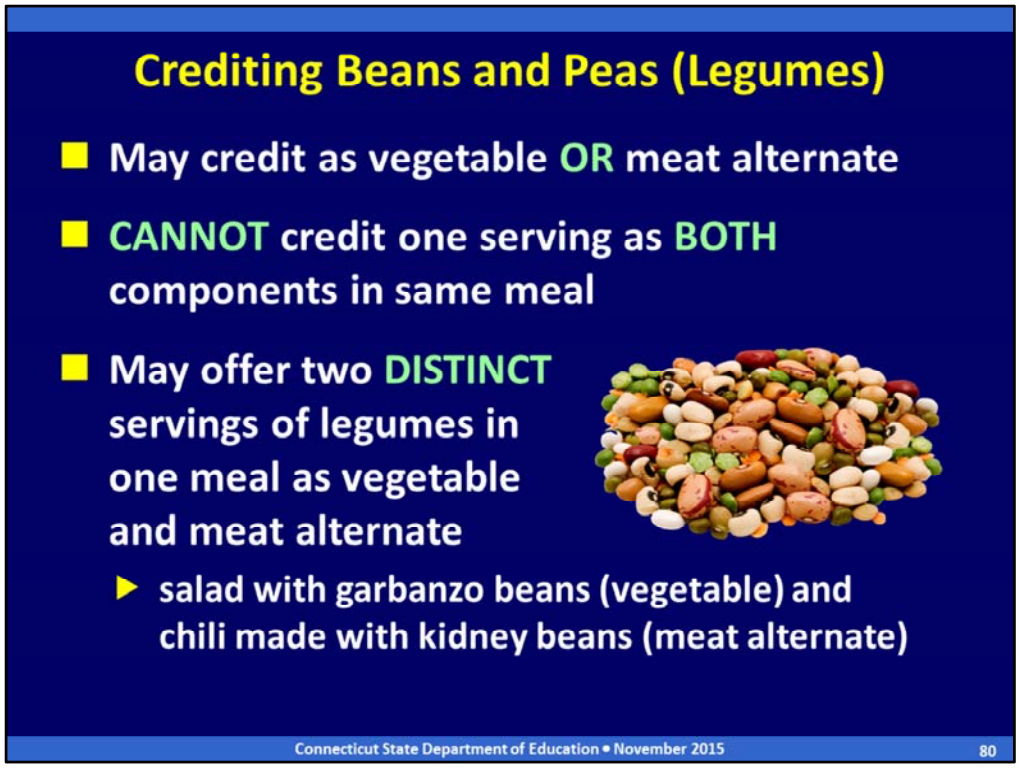

Beans and peas that are not allowed to mature on the plant before harvesting are often referred to as **immature or fresh**, and do not qualify as dry beans or peas for the lunch meal pattern criteria.

Immature lima beans and green peas are examples of beans and peas that are not allowed to dry on the plant before harvest and therefore do not qualify as dry beans and peas. They count as starchy vegetables.

In addition, green beans are not a legume. They are in the "other" vegetable subgroup



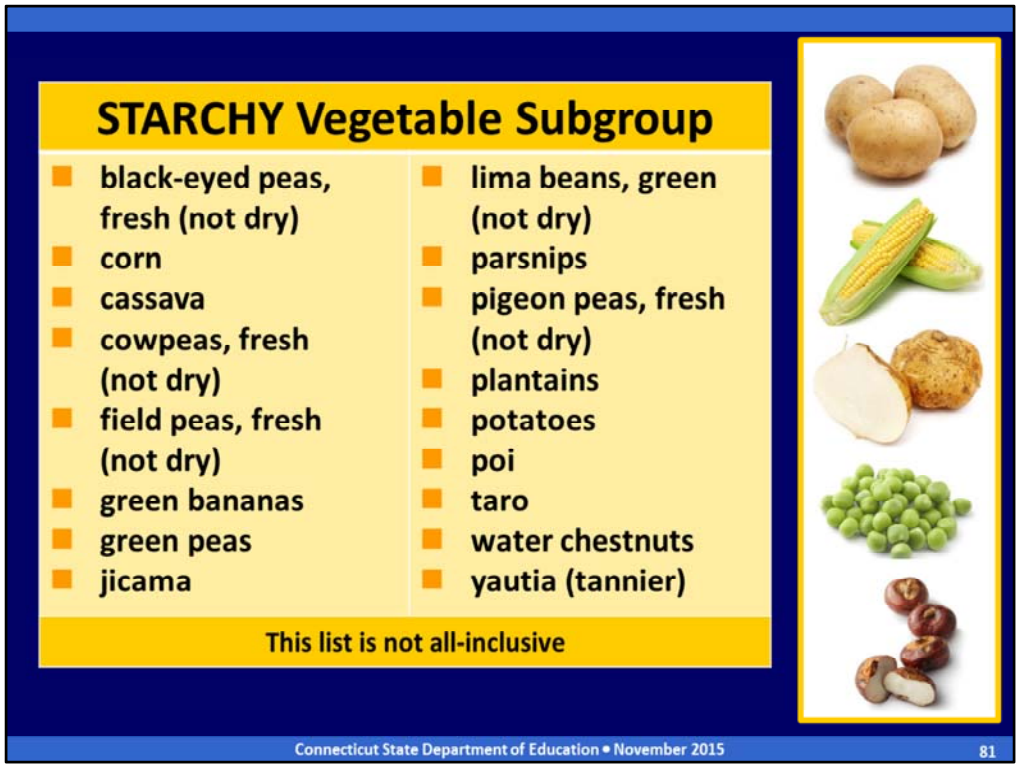

This slide shows why the legumes group does not include green peas. You can see the difference between the protein and fiber content in grams of mature dry peas (in brown) and frozen green peas (in green). You can see that split peas are twice as high as green peas in these nutrients, and they are also higher in other nutrients.




Menu planners can decide how to incorporate beans and peas (legumes) into school meals. These foods may count toward either the vegetables or meat/meat alternates component. However, schools cannot offer one serving of legumes and count it toward both food components during the same meal.

Legumes can be offered as either component in different meals. For example, a serving of refried beans can be offered as a vegetable at one lunch and as a meat/meat alternate at another lunch. The refried beans offered as a vegetable count toward the weekly bean/peas subgroup requirement but not toward the minimum weekly meat/meat alternates requirement.

If a meal includes two servings of legumes, the menu planner can choose to count one serving as a vegetable and one serving as meat/meat alternate. For example, a meal contains a salad with garbanzo beans and chili made with kidney beans. The menu planner may count the garbanzo beans as the vegetables component and the kidney beans as the meat/meat alternates component.




This slide shows some examples of vegetables from the starchy subgroup, such as potatoes, corn, jicama, green peas and water chestnuts.

**Ask participants:** What are some of the common starchy vegetables that you serve in your schools?

**INSTRUCTOR NOTES:**
Mention just a few examples, such as the vegetables depicted in the photos (potatoes, corn, jicama, green peas and water chestnuts). Do not review all of the vegetables on the slide.

These **definitions** are for some less commonly known vegetables. You do not need to provide them to the class. They are only for your for background information in case questions arise.

- **Cassava:** A starchy root vegetable that is common in the tropics.
- **Jicama:** A starchy root vegetable that is popular in Mexican cuisine.
- **Plantains:** A staple food in tropical regions that is similar to bananas but contains more starch and less sugar, and are therefore generally cooked before being eaten. Plantains are used similar to potatoes.
- **Poi:** Traditional Hawaiian food made from the underground plant stem (corm) of the taro plant. It is produced by baking or steaming then mashing, and adding water.
- **Taro:** A tropical root vegetable native to Southern India and Southeast Asia.
- **Yautia** (pronounced yow-TEA-ah) is a starchy root cultivated in the tropics and cooked and eaten like potatoes.


The "other" vegetable subgroup is a distinct grouping of food items classified by the 2010 Dietary Guidelines. It Includes all fresh, frozen and canned vegetables, cooked or raw, that are not part of the dark green, red/orange, beans/peas and starchy groups. Schools can choose to substitute vegetables from the dark green, red/orange, or beans/peas for "other" vegetables, but they **cannot** substitute starchy vegetables for "other" vegetables.

This slide shows some examples of vegetables from the "other" subgroup. It includes all other vegetables that are not in the dark green, red/orange, beans and peas and starchy groups. Examples include green beans, turnips, cauliflower, radishes, eggplant and cabbage.

**Ask participants:** What are some of the common dark green vegetables that you serve in your schools?

**INSTRUCTOR NOTES:**
Mention just a few examples, such as the vegetables depicted in the photos (green beans, turnips, cauliflower, radishes, eggplant and cabbage). Do not review all of the vegetables on the slide.

These **definitions** are for some less commonly known vegetables. You do not need to provide them to the class. They are only for your for background information in case questions arise.

**Breadfruit:** Comes from a tree grown on most Pacific Islands throughout the tropics. It is similar to other starchy staple crops commonly eaten in the tropics, such as taro, plantain, cassava, sweet potato and white rice.

**Chayote** (pronounced chi-OH-tea) is technically a fruit but is often used as a vegetable. When cooked, chayotes are treated similarly to summer squash and are a suitable substitute. Chayote

is native to Mexico and is cultivated in other warm climates.

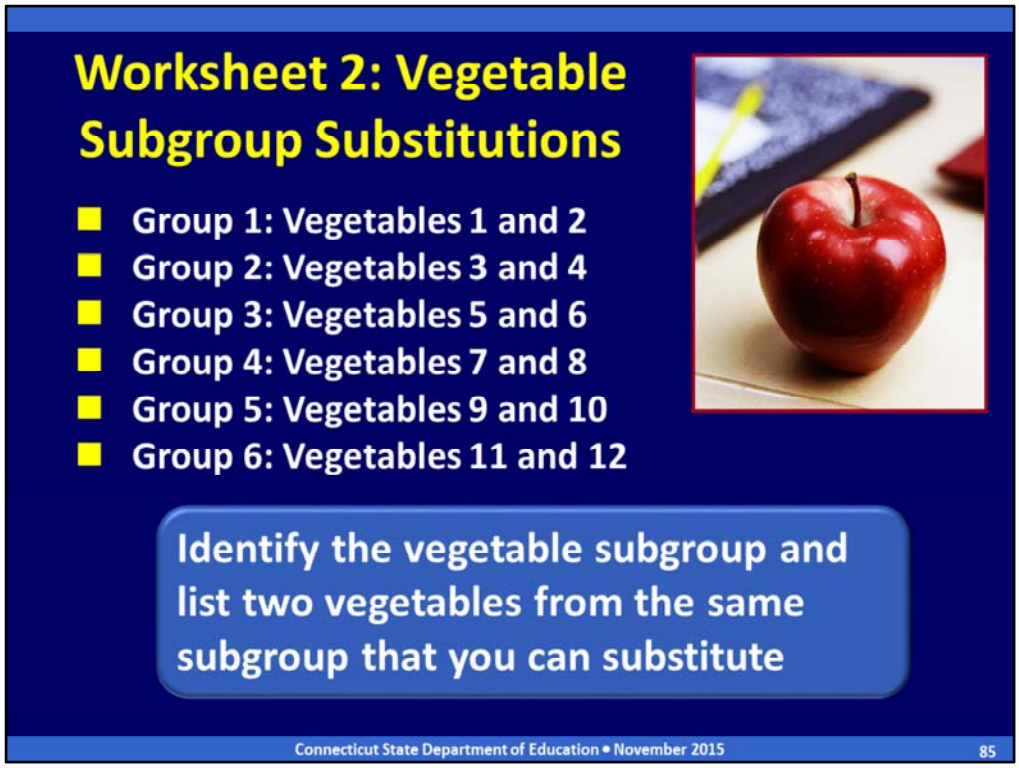

The vegetable subgroups can be **offered in any order and amount** throughout the week as long as the weekly totals are met. Remember that while there is a daily requirement for a minimum amount of ¾ cup of vegetables for grades K-5 and 6-8 and 1 cup of vegetables for grades 9-12, there is **no daily requirement** for the specific vegetable subgroups.

Larger amounts of vegetables may be served if the average weekly meals meet the dietary specifications for the specific grade group, i.e., limits for calories, saturated fat and sodium.


In addition to the five subgroups, there is another category for additional vegetables that can come from any subgroup (dark green, red/orange, beans and peas, starchy and other) to meet the weekly total.

This group is for the additional vegetables that are needed to add up to the **total** weekly requirement for each grade group.

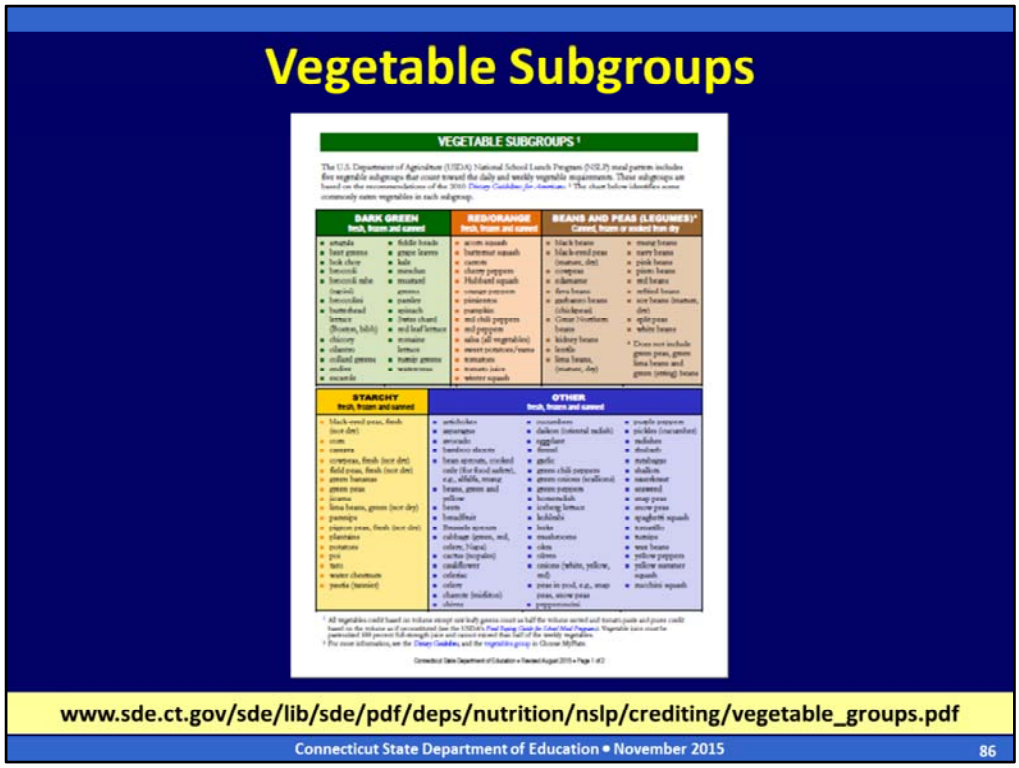
This additional category is **not** the same as the "other" subgroup.



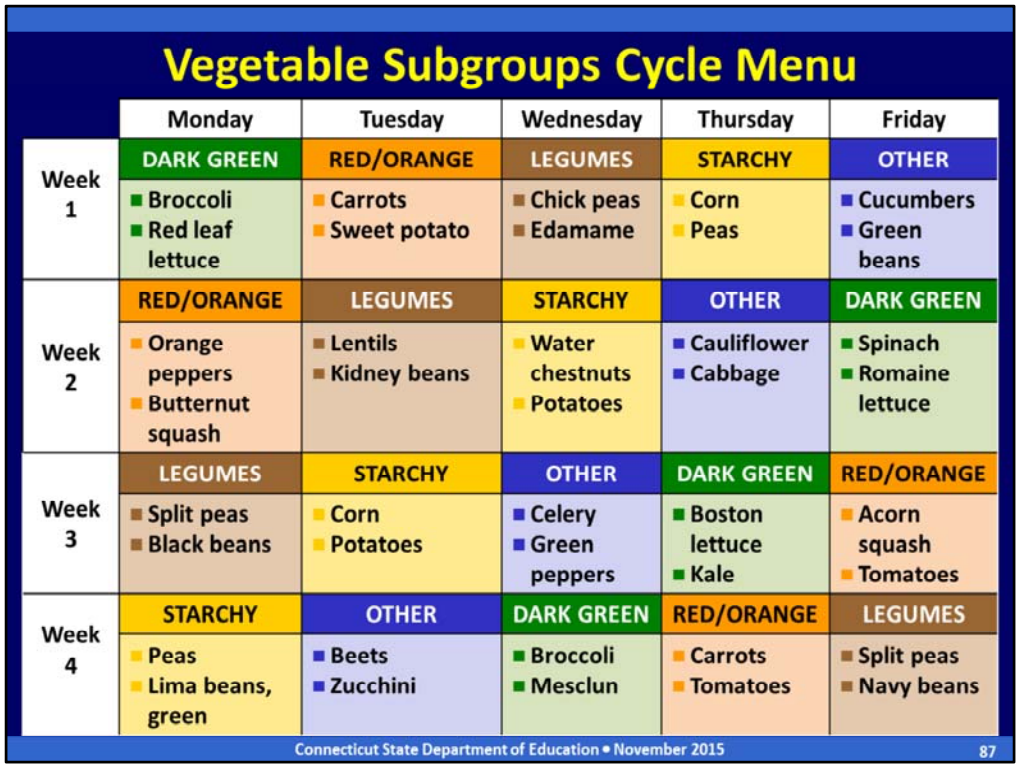

Take out worksheet 2 – Vegetable Subgroup Substitutions. Your produce delivery was missing the vegetables for today's lunch. For each vegetable assigned to your group, identify the vegetable subgroup where it belongs and list two vegetables from the same subgroup that you can substitute so the menu complies with the weekly subgroup requirements.

**INSTRUCTOR NOTES:**

- Divide participants into six groups (count off by sixes). Assign two vegetables to each group: group 1 has 1 and 2; group 2 has 3 and 4, and so on.
- Ask participants not to refer to the Vegetable Subgroups handout during the activity. They can use it when we check their answers.
- Give groups 5 minutes to identify the vegetable subgroup and list two vegetable substitutions.
- When the groups are done, have each group report their answers. The shortest person is the reporter.
- If time is short, have people stay in table groups or do the activity together as one large group.
- Summarize why it's important to know appropriate substitutions: you must offer the minimum amount of each subgroup over the week and to do this, you must be able to substitute vegetables from the same subgroup if one is not available.




The CSDE's Vegetable Subgroups handout provides information on what vegetables belong to each subgroup. It is available at the link indicated on this slide.



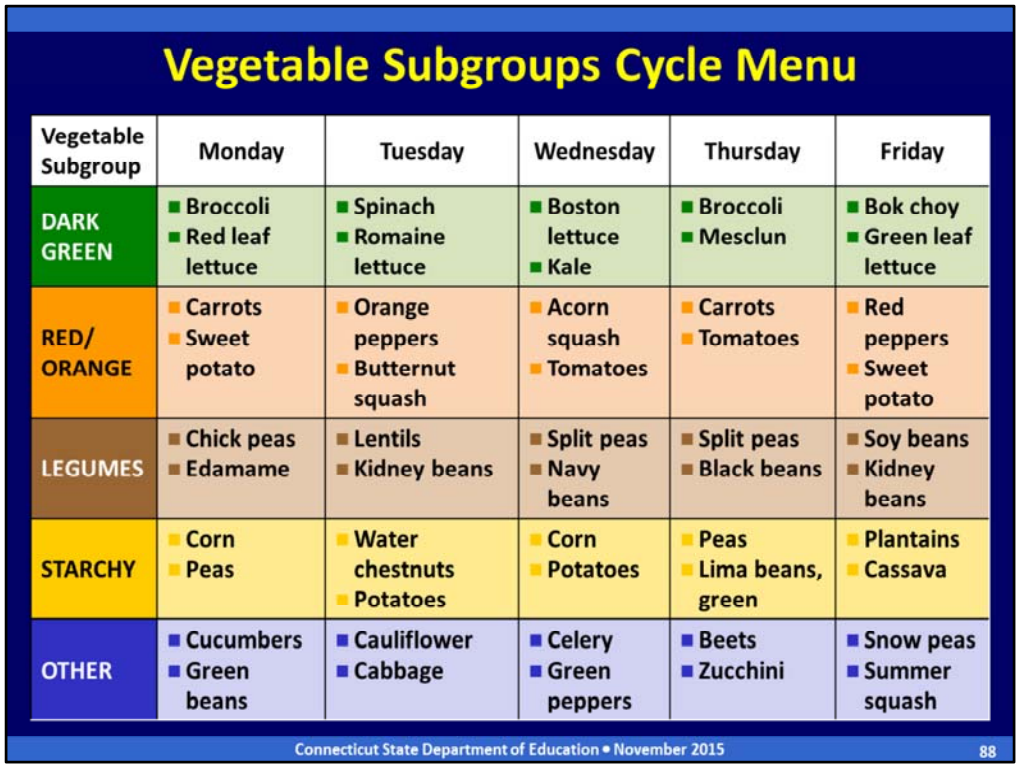

**Ask participants:** How do you ensure that your school's weekly menus meet the vegetable subgroups?

One of the easiest ways to make sure you are meeting all the weekly vegetable subgroups is to develop a vegetable subgroup cycle menu. This slide shows an example.

You can choose to vary the choices within each subgroup or you can offer the same foods from a particular subgroup each week. For example, the red/orange subgroup could be carrots and sweet potatoes every week. However, the USDA encourages a variety of weekly vegetable subgroup choices for optimum nutrition.

In this example, the menu planner could choose to include several daily choices from each subgroup. Another option is to allow the kitchen manager the flexibility to choose one daily vegetable from the subgroup depending on the featured menu items and the cost, seasonality and availability of the vegetables within the daily subgroup.

While this type of menu would meet the requirements for the weekly vegetable subgroups, the disadvantage of serving one vegetable subgroup each day is that there is not much color variety on a daily basis. Since we want to plan colorful, eye-appealing menus for students, a better idea might be to offer at least two or more different subgroups each day.



## Vegetable Subgroups Cycle Menu

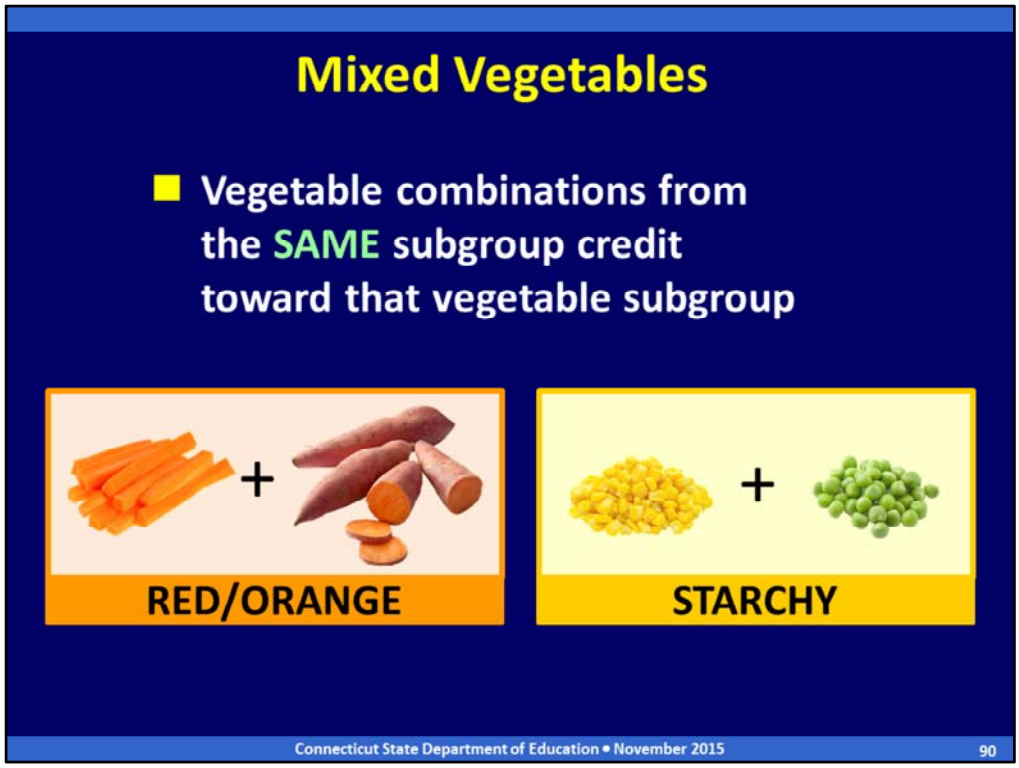
| Vegetable Subgroup | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|
| DARK GREEN | ■ Broccoli<br>■ Red leaf lettuce | ■ Spinach<br>■ Romaine lettuce | ■ Boston lettuce<br>■ Kale | ■ Broccoli<br>■ Mesclun | ■ Bok choy<br>■ Green leaf lettuce |
| RED/ ORANGE | ■ Carrots<br>■ Sweet potato | ■ Orange peppers<br>■ Butternut squash | ■ Acorn squash<br>■ Tomatoes | ■ Carrots<br>■ Tomatoes | ■ Red peppers<br>■ Sweet potato |
| LEGUMES | ■ Chick peas<br>■ Edamame | ■ Lentils<br>■ Kidney beans | ■ Split peas<br>■ Navy beans | ■ Split peas<br>■ Black beans | ■ Soy beans<br>■ Kidney beans |
| STARCHY | ■ Corn<br>■ Peas | ■ Water chestnuts<br>■ Potatoes | ■ Corn<br>■ Potatoes | ■ Peas<br>■ Lima beans, green | ■ Plantains<br>■ Cassava |
| OTHER | ■ Cucumbers<br>■ Green beans | ■ Cauliflower<br>■ Cabbage | ■ Celery<br>■ Green peppers | ■ Beets<br>■ Zucchini | ■ Snow peas<br>■ Summer squash |

Connecticut State Department of Education • November 2015 88

This slide shows another example of a vegetable subgroup cycle menu. In this example, each subgroup is offered every day, providing for extensive variety and colorful meals.

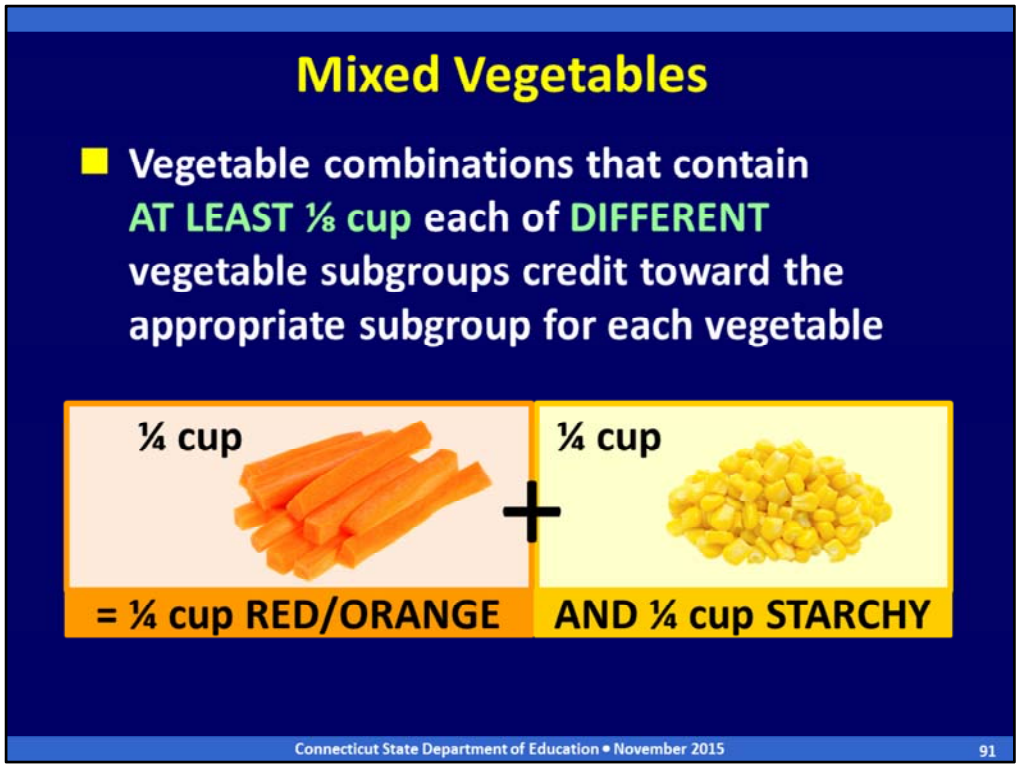
As with the example on the previous slide, the menu planner could choose to include several daily choices from each subgroup. Another option is to allow the kitchen manager the flexibility to choose one daily vegetable from the subgroup depending on the featured menu items and the cost, seasonality and availability of the vegetables within the daily subgroup.


There are some additional considerations for determining how to credit vegetables toward the meal pattern requirements. Let's look at the requirements for mixed vegetables, soups, pureed vegetables and vegetable juice.




The crediting of vegetable mixtures depends on the types and amounts of vegetables in the mixture. Vegetable combinations from the **same subgroup** count toward that single vegetable subgroup. For example:

- a mixture of carrots and sweet potatoes (both red/orange subgroup) credits as red/orange vegetables; and
- a mixture of corn and green peas (both from the starchy subgroup) credits as starchy vegetables.

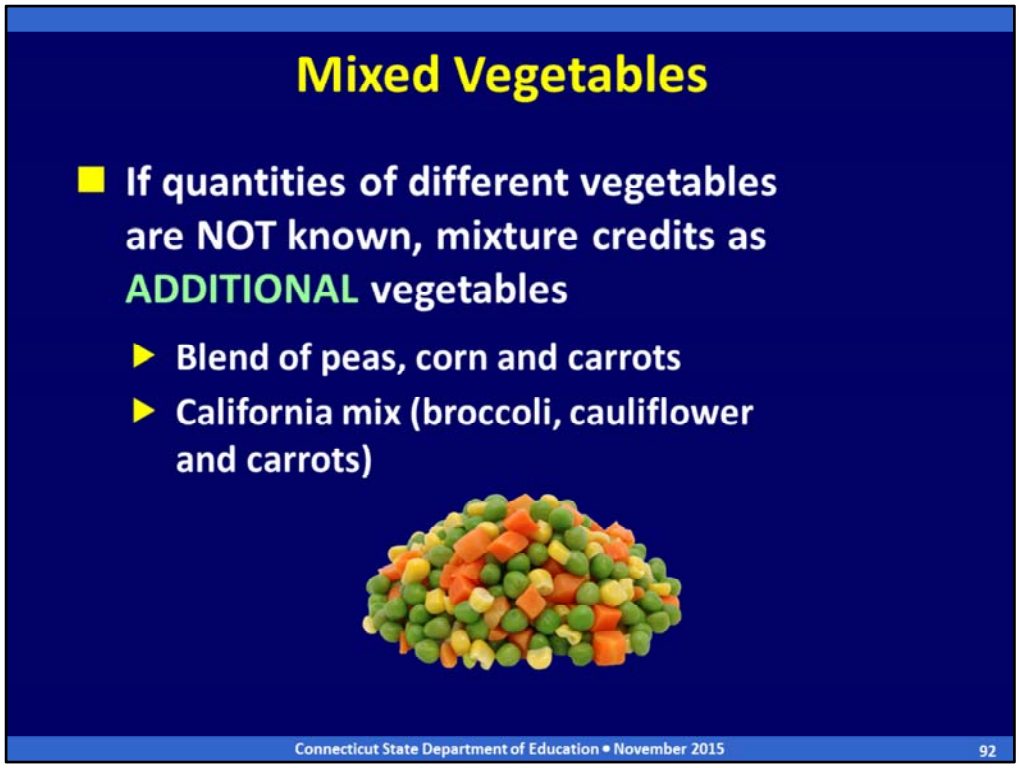



Vegetable combinations that contain at least ⅛ cup each of different vegetable subgroups (e.g., carrots and corn) may credit each one toward the appropriate subgroups. For example, a mixture of ¼ cup of carrots (red/orange) and ¼ cup corn (starchy) credits as ¼ cup of red/orange vegetables and ¼ cup of starchy vegetables.

**Ask participants:** How would you know how much of each vegetable is in a mixture?

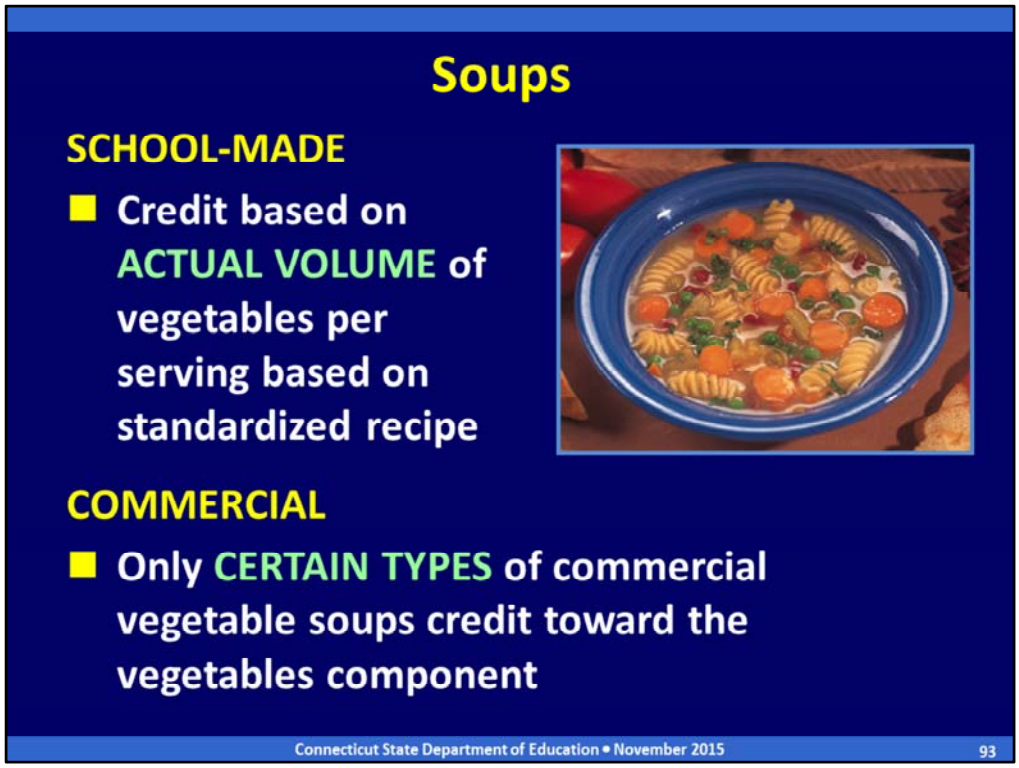
- Menu planners would determine this information based on a **recipe** prepared in the school, for example, mixing one pound of frozen carrots with one pound of frozen corn provides a mixture that contains equal amounts of carrots and corn.

- If the menu planner purchases a pre-mixed vegetable, this information must be provided by the manufacturer's PFS.




If the quantities of the different vegetables are **not known**, the vegetable mixture credits as "additional vegetables." For example, a bag of a frozen vegetable blend like California mix (broccoli, cauliflower and carrots) or a vegetable blend of peas, corn and carrots.

As we just saw from the previous slide, one strategy to know the exact amount of mixed vegetables is to mix them yourself. For example, mixing together a 1-pound bag of frozen peas, 1-pound bag of frozen corn and a 1-pound bag of frozen carrots provides equal amounts of peas, corn and carrots.

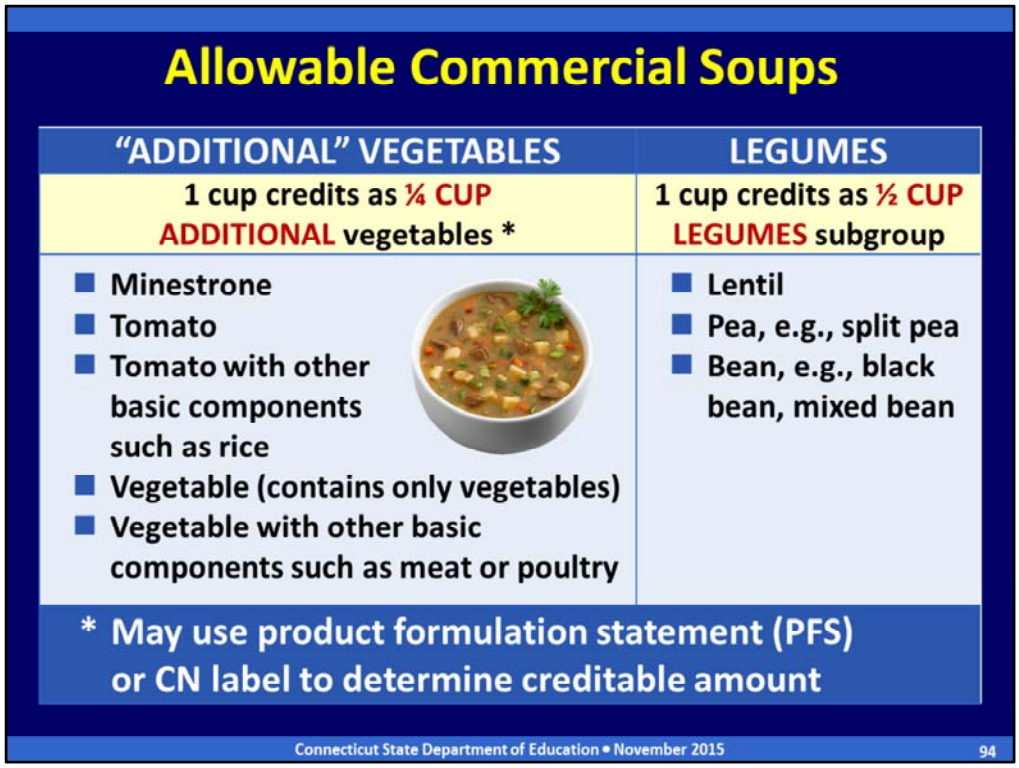



Vegetable soups **made from scratch** credit based on the **actual amount (volume)** of vegetables in each subgroup per serving. Menu planners must document this information with a standardized soup recipe, based on the yields in the *Food Buying Guide.*

Recipes must contain at least **⅛ cup of vegetables per serving** (the minimum creditable amount) to credit toward part of the vegetables component. The rest of the minimum daily serving must be met by adding more vegetables to the menu.

**Commercial** soups credit differently from school-made soups. Only certain types of commercial vegetable soups can credit toward the vegetables component.

Remember that commercial soups tend to be very high in sodium. To ensure that menus meet the sodium target of the dietary specifications, it is important consider the sodium content of all foods offered as part of school meals. Look for low-sodium varieties.



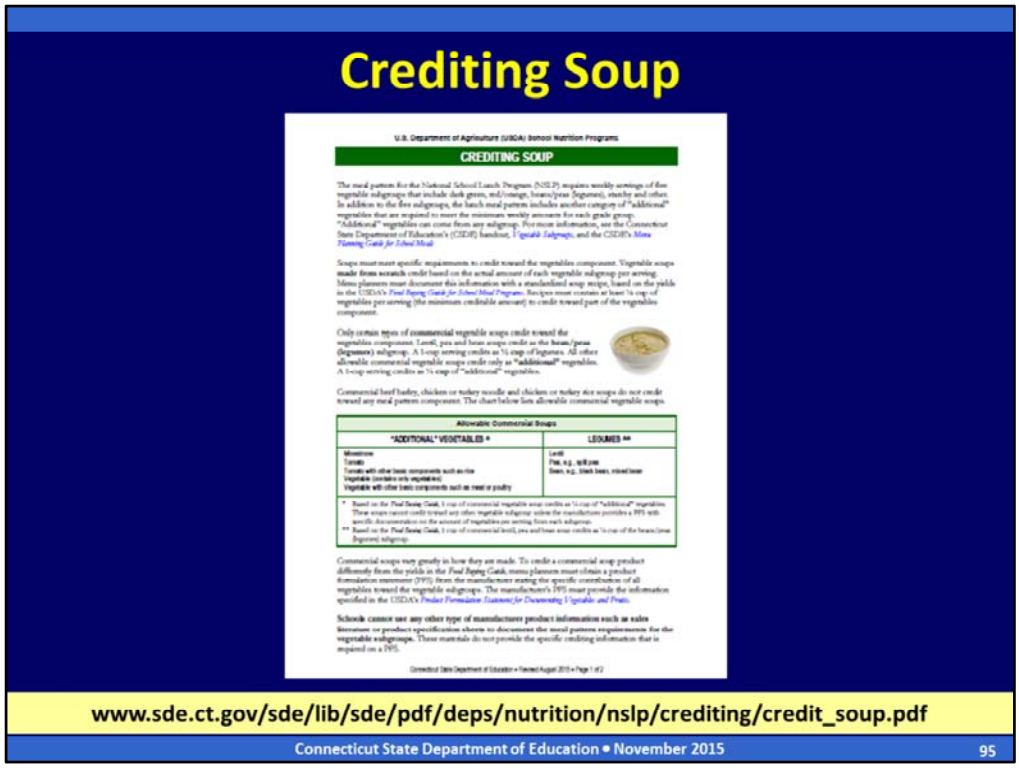

The crediting of commercial vegetable soups is based on the yields in *the Food Buying Guide.*

- Allowable commercial vegetable soups such as minestrone and tomato credit only as "**additional**" vegetables. A 1-cup serving of these soups credits as ¼ cup of additional vegetables. Schools may use a PFS to determine the creditable amount. For example, if a PFS for tomato soup states that the soup provides ¼ cup of red/orange vegetables, the menu planner can count the soup as red/orange subgroup instead of additional vegetables. Note: Soup would only be CN labeled if it contained a sufficient amount of meat/meat alternates.

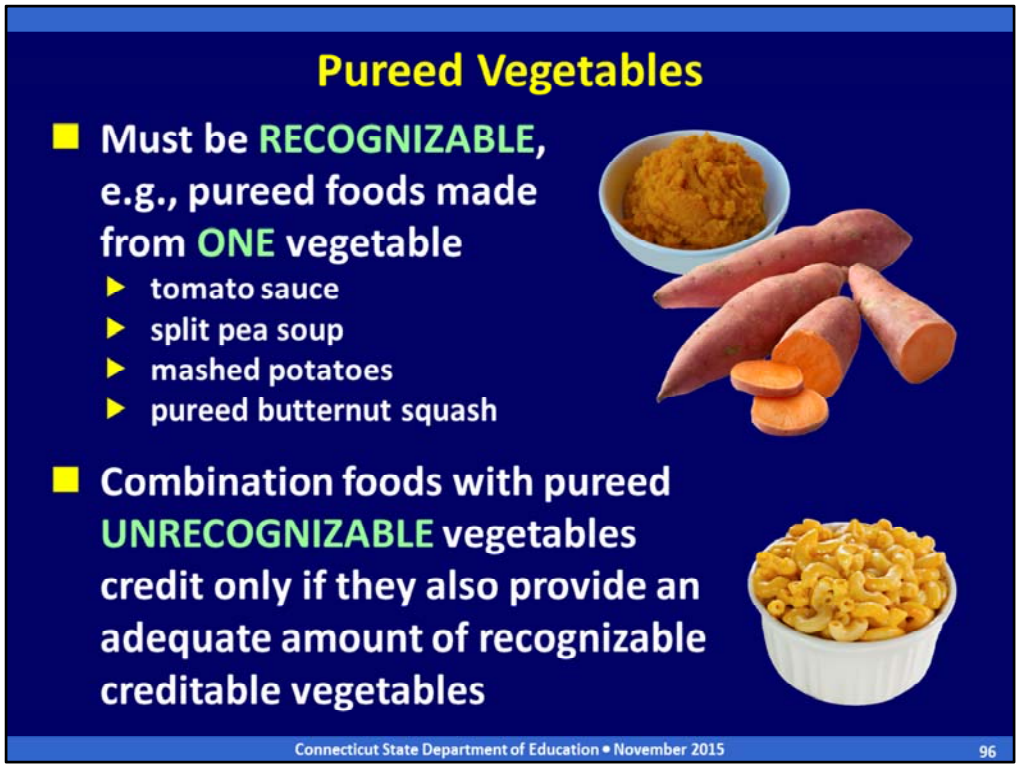
- Lentil, pea and bean soups credit as the **bean/peas (legumes)** subgroup. A ½-cup serving of these soups credits as ½ cup of legumes. Again, schools may use a PFS to determine the creditable amount.

Commercial beef barley, chicken or turkey noodle and chicken or turkey rice soups do not credit toward any meal pattern component.

There is tremendous variability in how commercial soups are made. To credit a commercial soup product differently from the yields in the *Food Buying Guide*, schools must obtain a PFS from the manufacturer stating the specific contribution of all vegetables toward the vegetable subgroups.



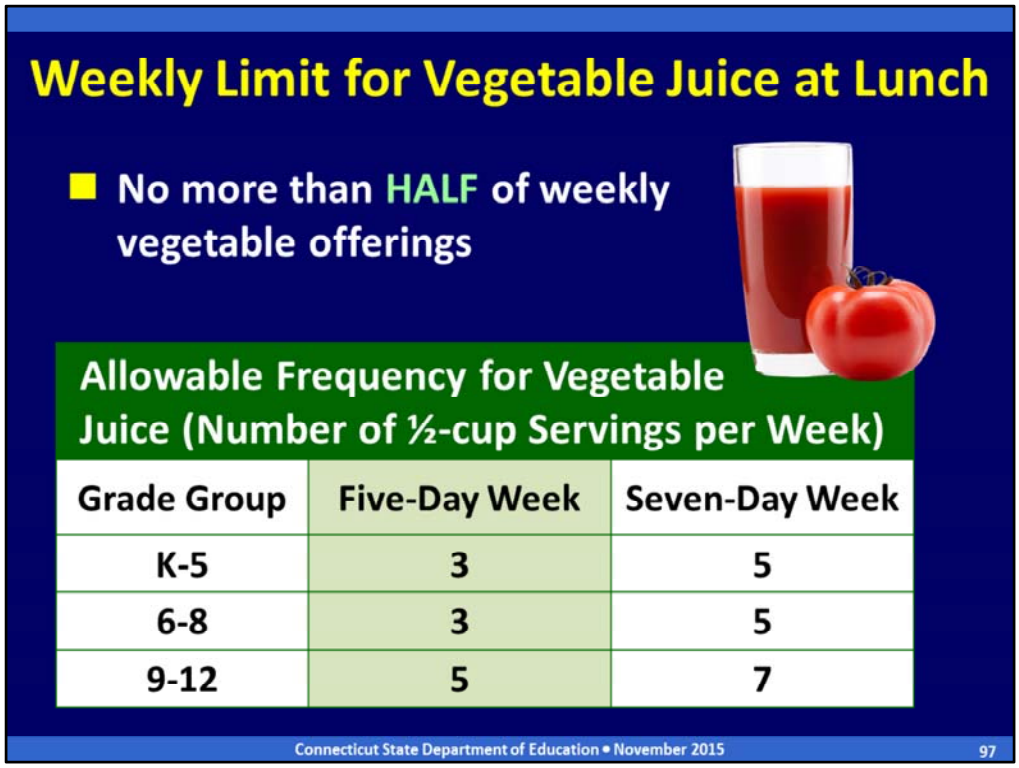

The CSDE's Crediting Soup handout provides information on how to credit commercial and school-made soups, at the link indicated on this slide.




Pureed foods made from **one vegetable** such as tomato sauce, split pea soup, mashed potatoes or pureed butternut squash are **recognizable** creditable vegetables. They can count toward the appropriate vegetable subgroup if the serving size is at least ⅛ cup of vegetable (the minimum creditable amount). Pureed vegetables credit based on the **actual volume** served.

Combination foods with pureed **unrecognizable** vegetables contribute to the meal pattern requirements only if the dish that contains them also provides an adequate amount of recognizable creditable vegetables. For example, a serving of macaroni and cheese contains ⅛ cup of diced butternut squash (recognizable) and ⅛ cup of pureed carrots (unrecognizable). In this example, the dish provides a total of ¼ cup of red/orange vegetables.

If a dish with pureed vegetables does not contain at least ⅛ cup of a recognizable vegetable, it does not contribute to the vegetables component. The USDA emphasizes the importance of the **nutrition education aspect** of school nutrition programs, which includes the goal of helping children easily recognize the key food groups that contribute to a healthy meal.



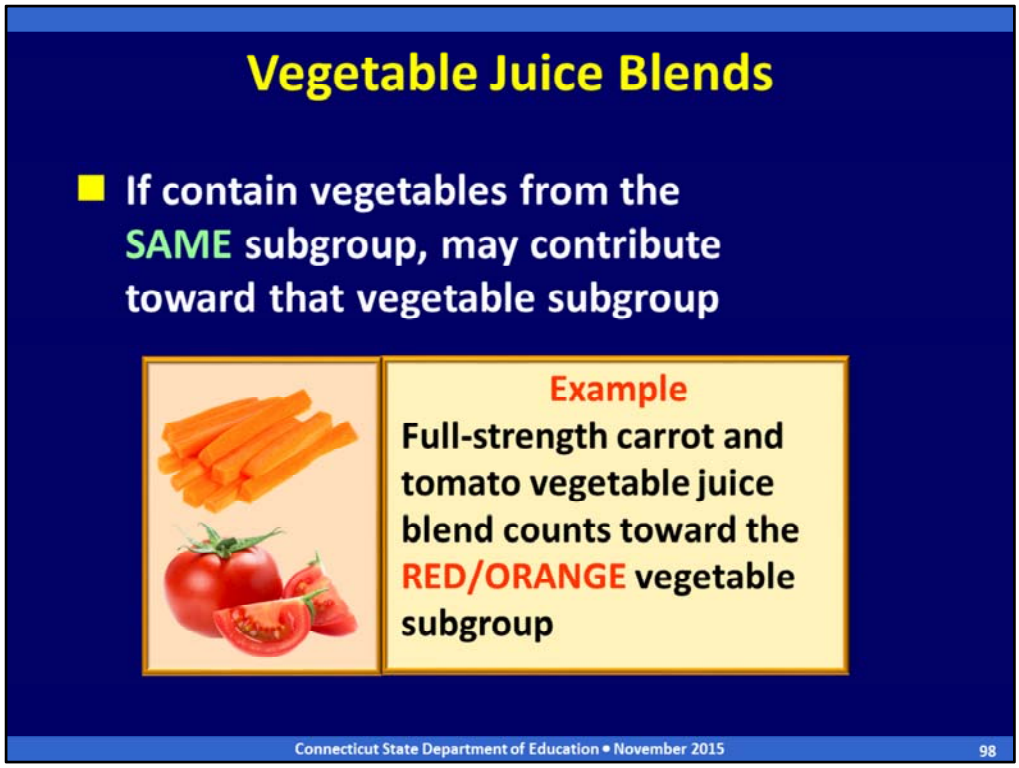

**Ask participants:** How many of you offer vegetable juice as part of school meals?

No more than half of vegetable offerings may be in the form of juice, and only 100% juice can be served. All juice must be pasteurized 100 percent full-strength juice.

This chart shows the maximum weekly contribution of vegetable juice for each grade group, based on ½ cup servings (4 fluid ounces) of vegetable juice. This is an important point for menu planning because elementary (grades K-5) and middle (grades 6-8) schools **cannot offer a daily choice** of vegetable juice. For these two grade groups, ½ cup of vegetable juice could be offered only twice per week for five-day weeks and five times per week for seven-day weeks. However, high schools could offer ½ cup of vegetable juice daily as part of assorted fruit choices for grades 9-12.

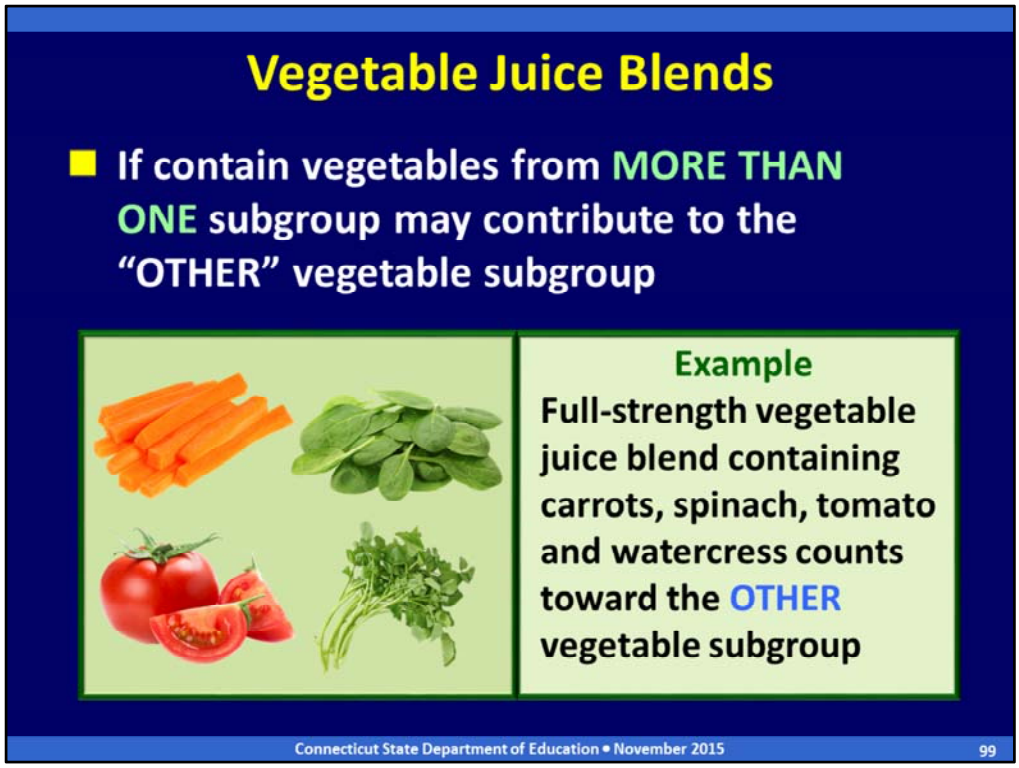
Remember that vegetable juice tend to be very high in sodium. To ensure that menus meet the sodium target of the dietary specifications, it is important consider the sodium content of all foods offered as part of school meals. Look for low-sodium varieties.

**INSTRUCTOR NOTES:** If no one serves vegetable juice, skip the next three slides on vegetable juice and let participants know they can refer back to these slides if they choose to serve vegetable juice as part of school meals in the future. If there are no participants from RCCIs, do not review the information for seven-day weeks.



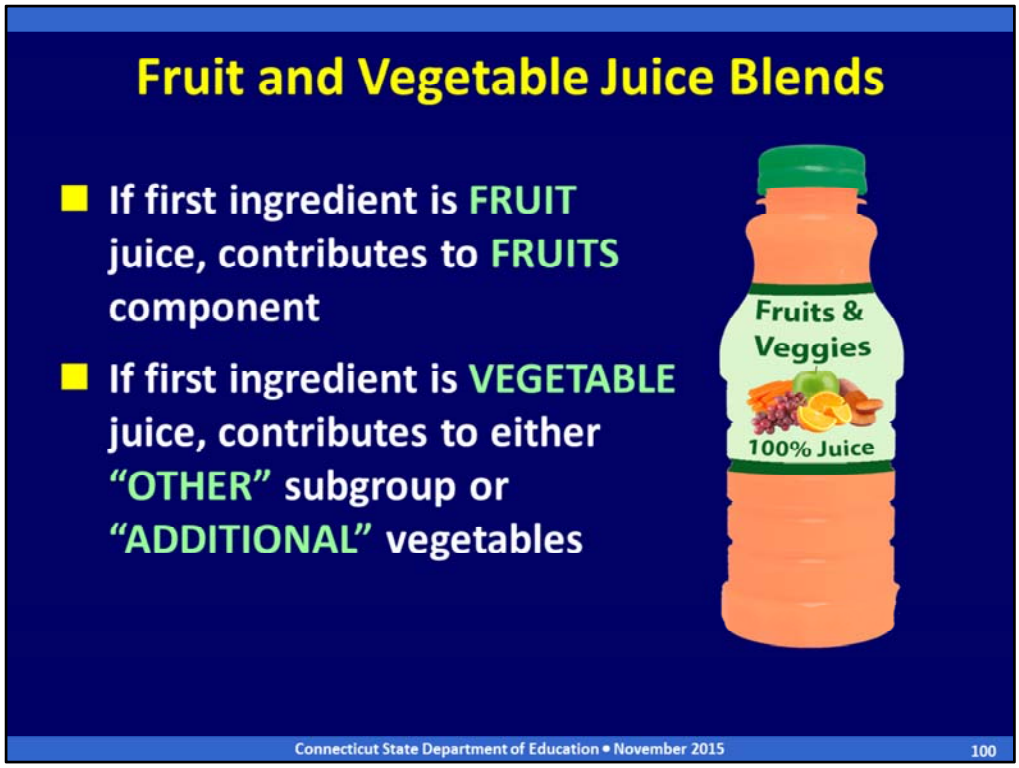

Full-strength vegetable juice blends that contain vegetables from the **same subgroup** may contribute toward that vegetable subgroup.

For example, full-strength carrot/tomato vegetable juice blend credits toward the red/orange vegetable subgroup because both vegetables are from the red/orange vegetables subgroup.




Vegetable juice blends containing vegetables from **more than one subgroup** may contribute to the "other" vegetable subgroup.

For example, a full-strength vegetable juice blend containing carrots, spinach, tomato and watercress counts toward the **other** vegetable subgroup.



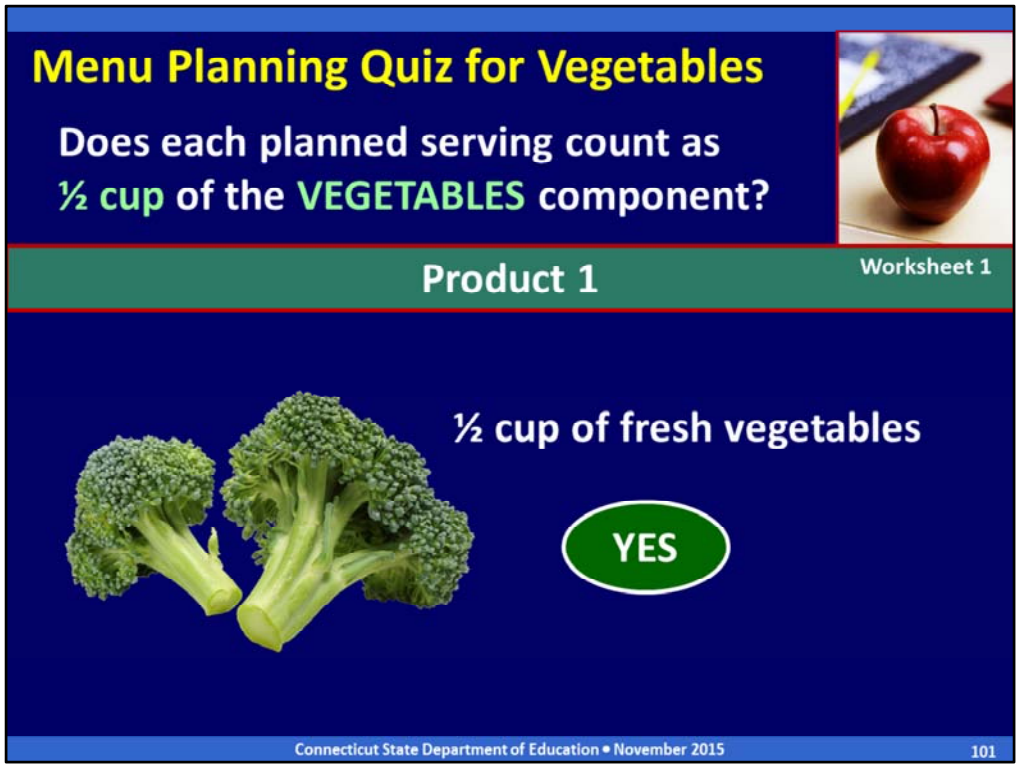

**Ask participants:** Does anyone offer fruit and vegetable juice blends as part of school meals?

Fruit and vegetable juice blends credit depending on the first ingredient.

- If the first ingredient in a full-strength 100 percent juice blend is a **fruit juice**, the juice blend contributes to the **fruits** requirement.

- If the first ingredient is a **vegetable jui**ce, the juice blend contributes to the **"other"** or **"additional"** vegetable requirements, depending on the needs of the menu planner.

**INSTRUCTOR NOTES:** If no one serves fruit and vegetable juice blends, skip this slides and let participants know they can refer back to it if they choose to serve fruit and vegetable juice blends as part of school meals in the future.

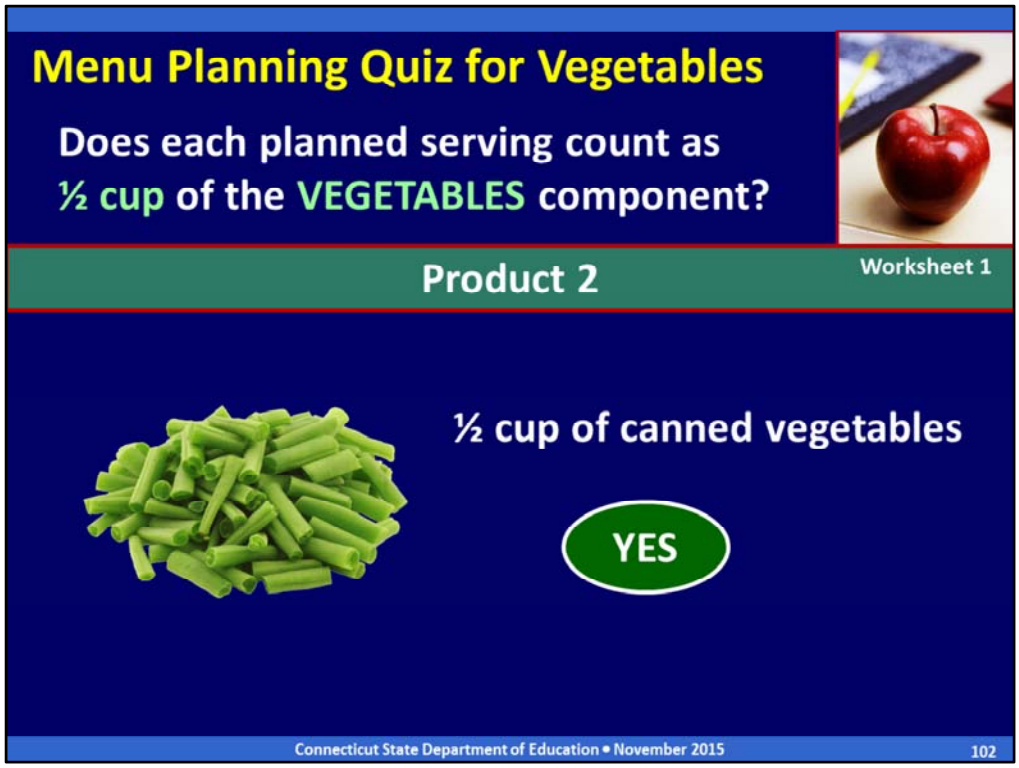


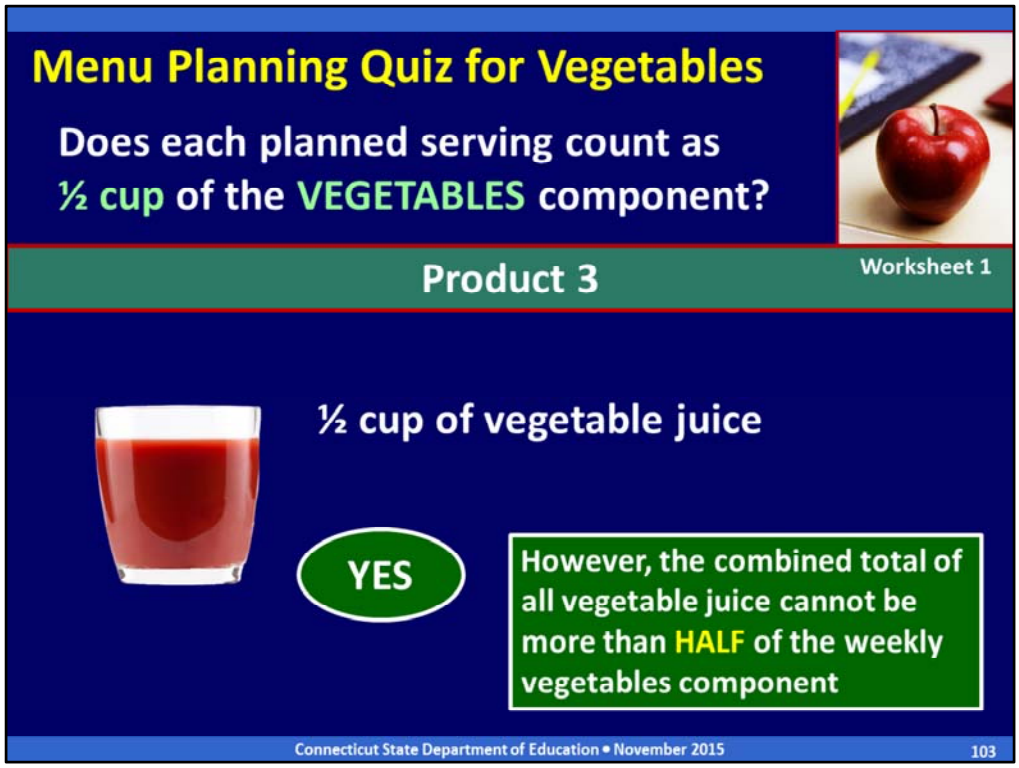

Take out worksheet 1 – Menu Planning Quiz for Fruits and Vegetables that we worked with earlier for fruits. We will be doing part 2, vegetables. We will take this quiz together as a group.

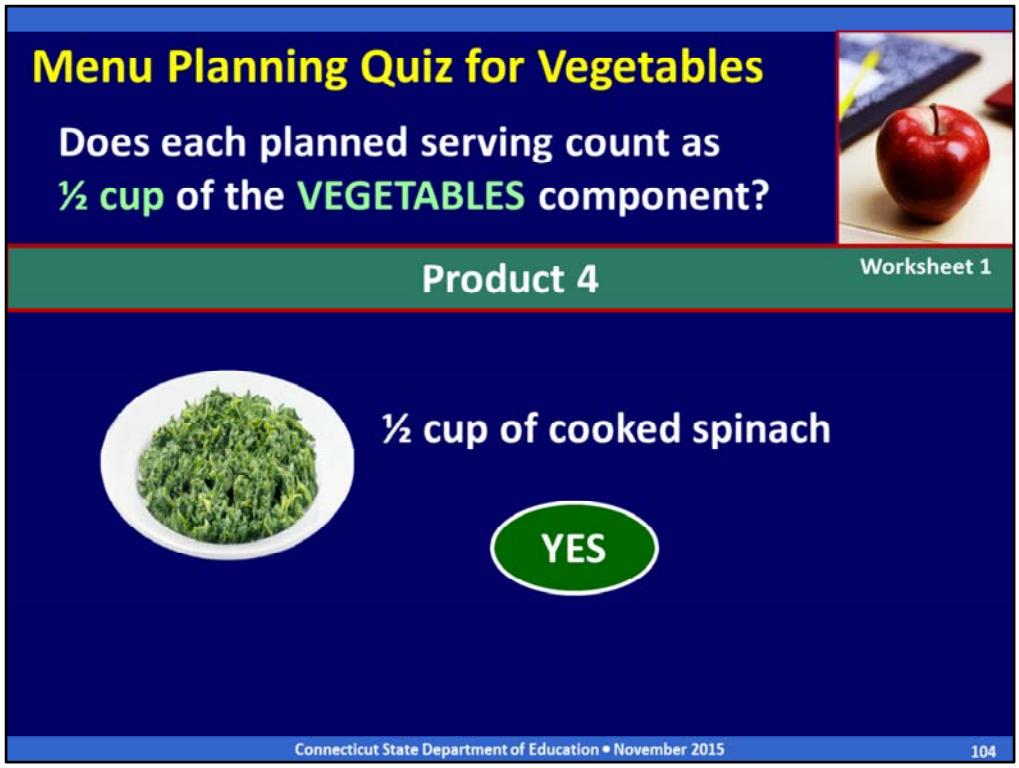
For each ½-cup serving listed, you will indicate whether it counts as **½ cup** of vegetables.

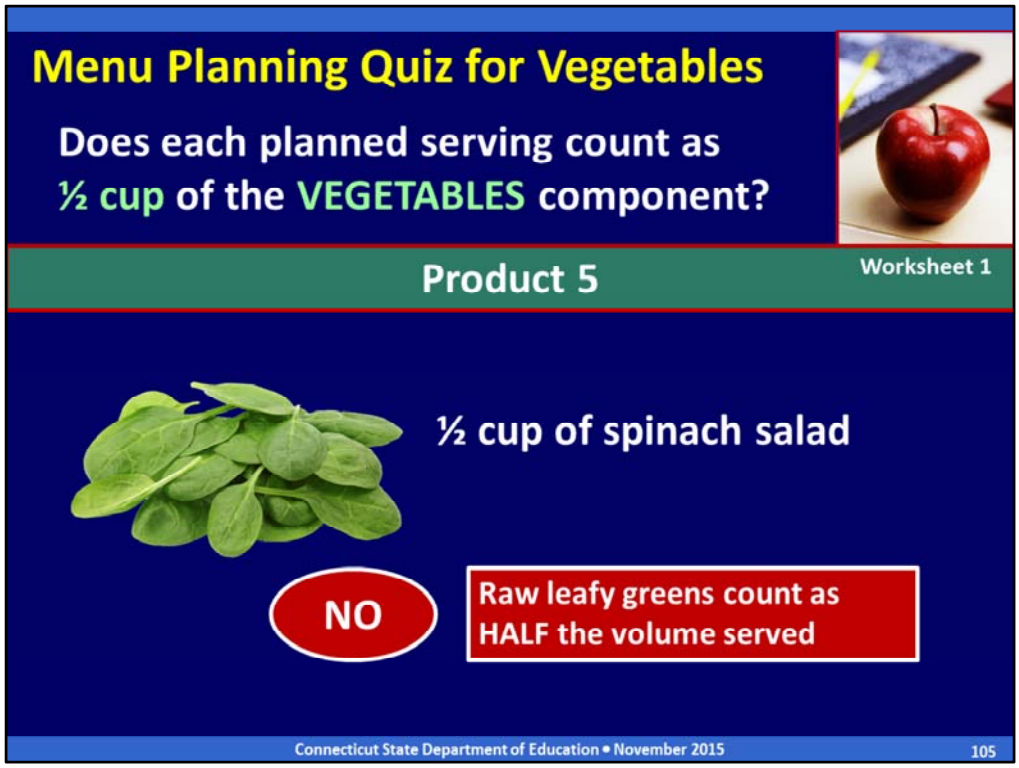
**INSTRUCTOR NOTES:**

- Do this activity with all participants together as one large group. Read each item, e.g., "½ cup of fresh vegetables," then wait for participants to answer. After they have answered, click to bring in answer on the slide.
- Refer to answer key for worksheet 1.


Menu Planning Quiz for Vegetables
Does each planned serving count as
½ cup of the VEGETABLES component?
Product 2
Worksheet 1
½ cup of canned vegetables
YES
Connecticut State Department of Education • November 2015
102


Menu Planning Quiz for Vegetables
Does each planned serving count as
½ cup of the VEGETABLES component?
Product 3
Worksheet 1
½ cup of vegetable juice
YES
However, the combined total of all vegetable juice cannot be more than HALF of the weekly vegetables component
Connecticut State Department of Education • November 2015
103


Menu Planning Quiz for Vegetables
Does each planned serving count as
½ cup of the VEGETABLES component?
Product 4
Worksheet 1
½ cup of cooked spinach
YES
Connecticut State Department of Education • November 2015
104


Menu Planning Quiz for Vegetables
Does each planned serving count as
½ cup of the VEGETABLES component?
Product 5
Worksheet 1
½ cup of spinach salad
NO
Raw leafy greens count as
HALF the volume served
Connecticut State Department of Education • November 2015
105

## Menu Planning Quiz for Vegetables

Does each planned serving count as ½ cup of the VEGETABLES component?

**Product 6**

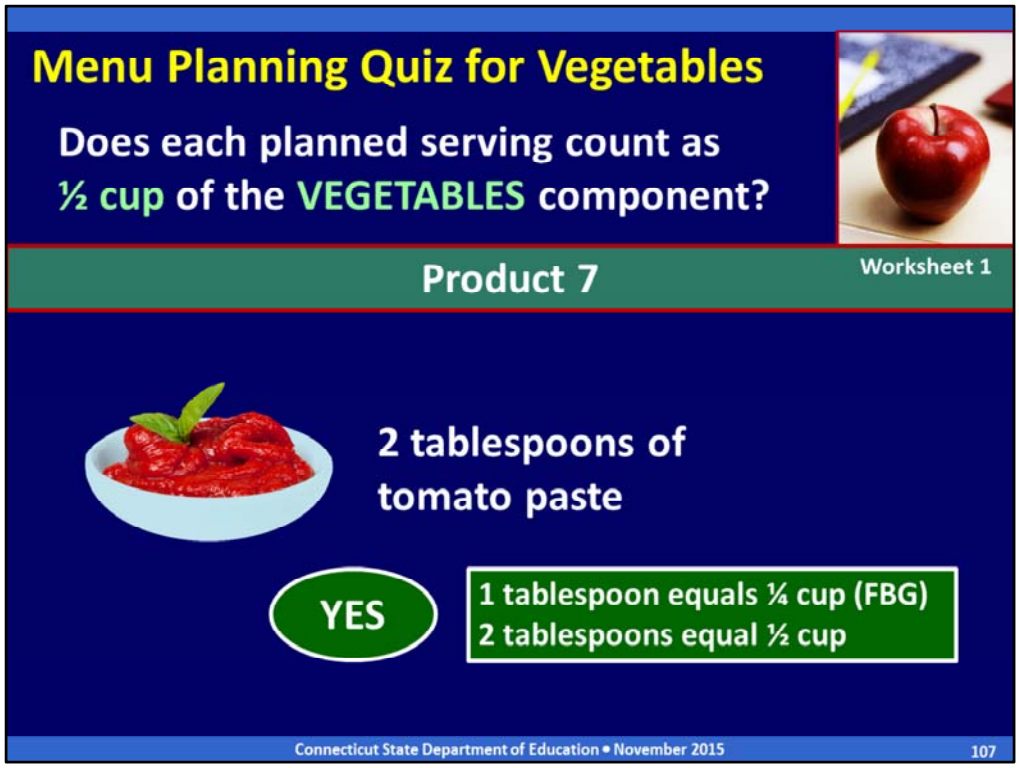
Worksheet 1

½ cup of legumes

**YES**

However, cannot be counted as both vegetable and meat alternate in the same meal

Connecticut State Department of Education • November 2015 106


Menu Planning Quiz for Vegetables
Does each planned serving count as
½ cup of the VEGETABLES component?
Product 7
Worksheet 1
2 tablespoons of
tomato paste
YES
1 tablespoon equals ¼ cup (FBG)
2 tablespoons equal ½ cup
Connecticut State Department of Education • November 2015
107

## Menu Planning Quiz for Vegetables

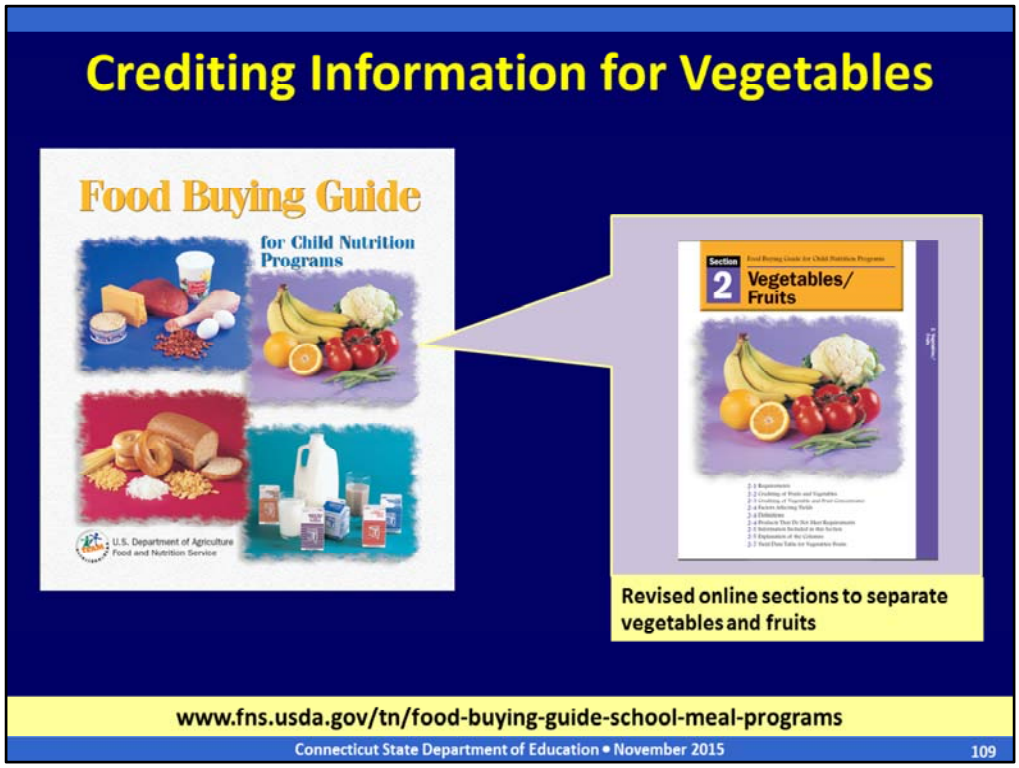
Does each planned serving count as ½ cup of the VEGETABLES component?

**Product 7** Worksheet 1

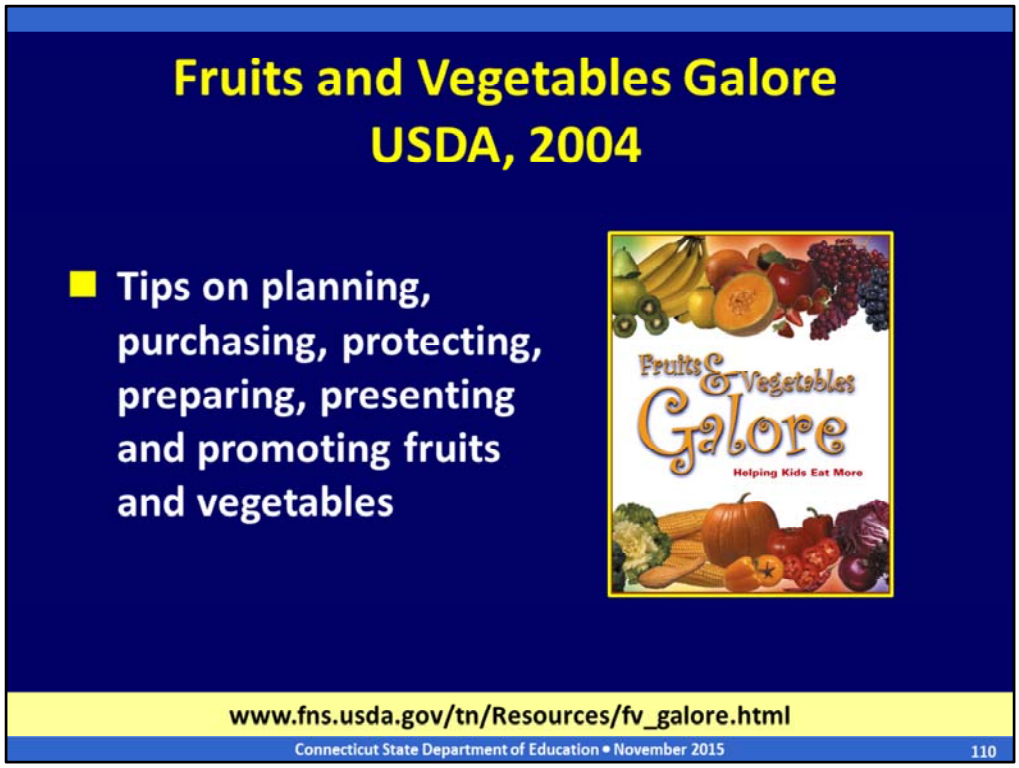
2 tablespoons of tomato puree

**NO** 2 tablespoons equal ¼ cup (FBG)

Connecticut State Department of Education • November 2015 108

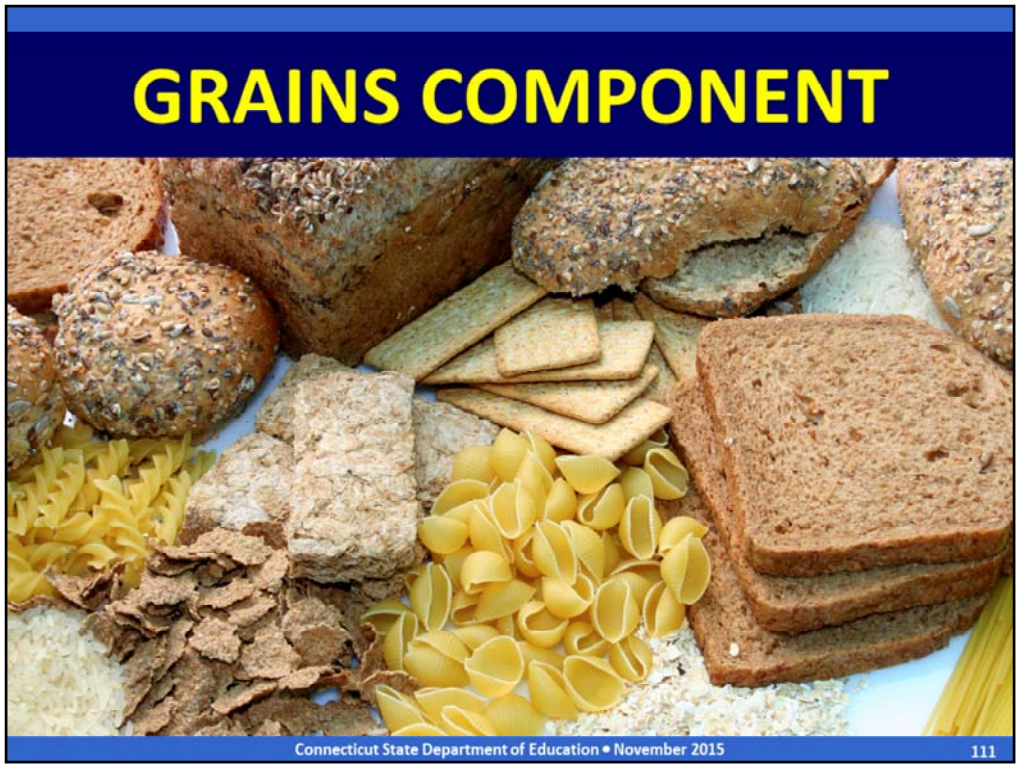



Remember that menu planners should use the USDA's *Food Buying Guide for Child Nutrition Programs* to determine how to credit vegetables.




This resource from the USDA can help schools with the fruits and vegetables components.

*Fruits and Vegetables Galore: Helping Kids Eat More* provides tips on planning, purchasing, protecting, preparing, presenting and promoting fruits and vegetables. It is available on the USDA Team Nutrition Web site, at the link indicated on the slide.

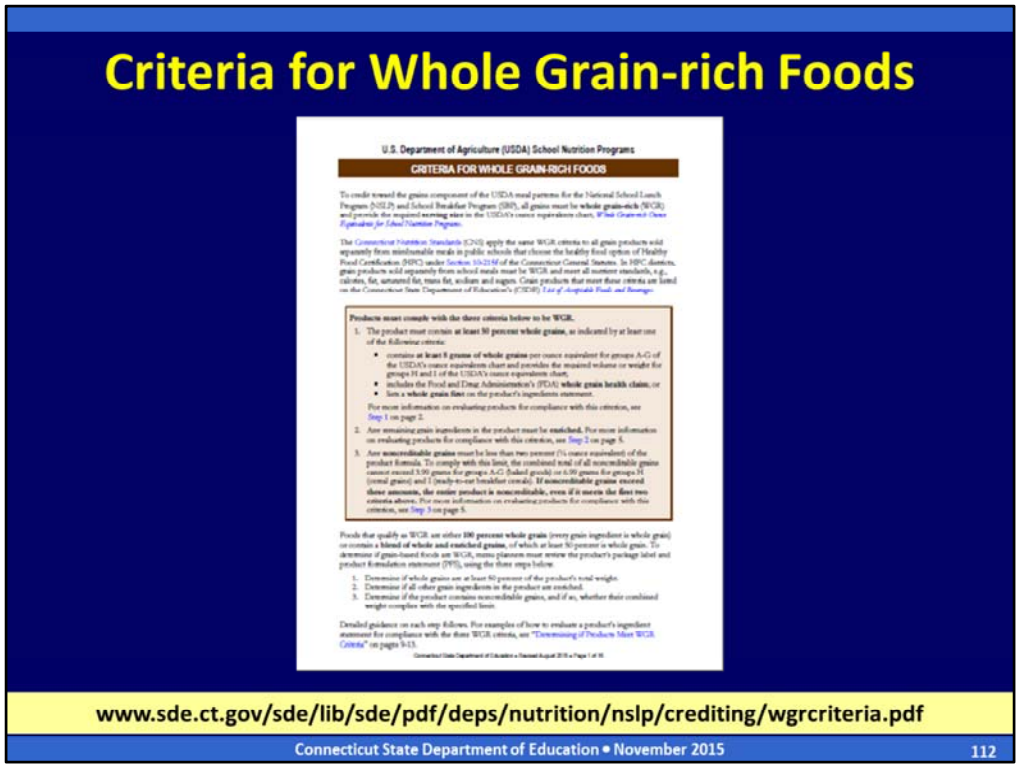



**Ask participants:** Before we move on to the grains component, what questions do you have about the vegetables component?

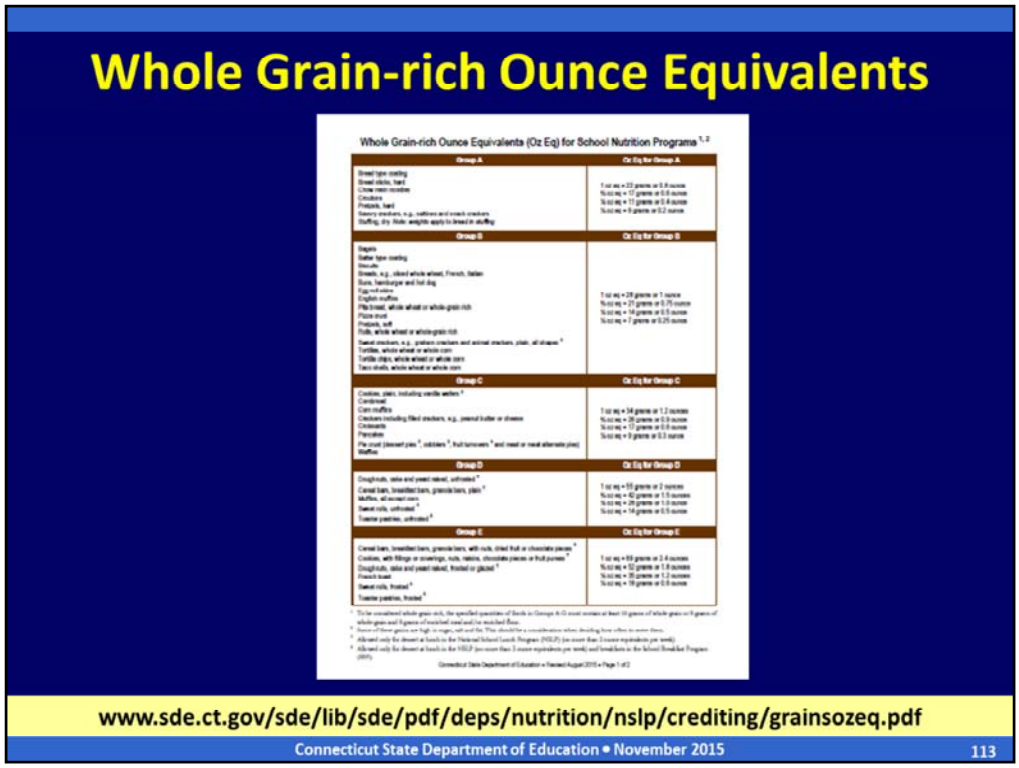
The grains component is the most challenging meal component to understand because it is more complicated than the other components. Today, we will focus on the basic requirements for crediting grains but we will not be doing any grains crediting calculations.

Two important handouts for you to consult include the CSDE's handouts, "Criteria for Whole Grain-rich Foods" and the USDA Whole Grain-rich Ounce Equivalents chart (next two slides). You have these handouts included in your handout packets.

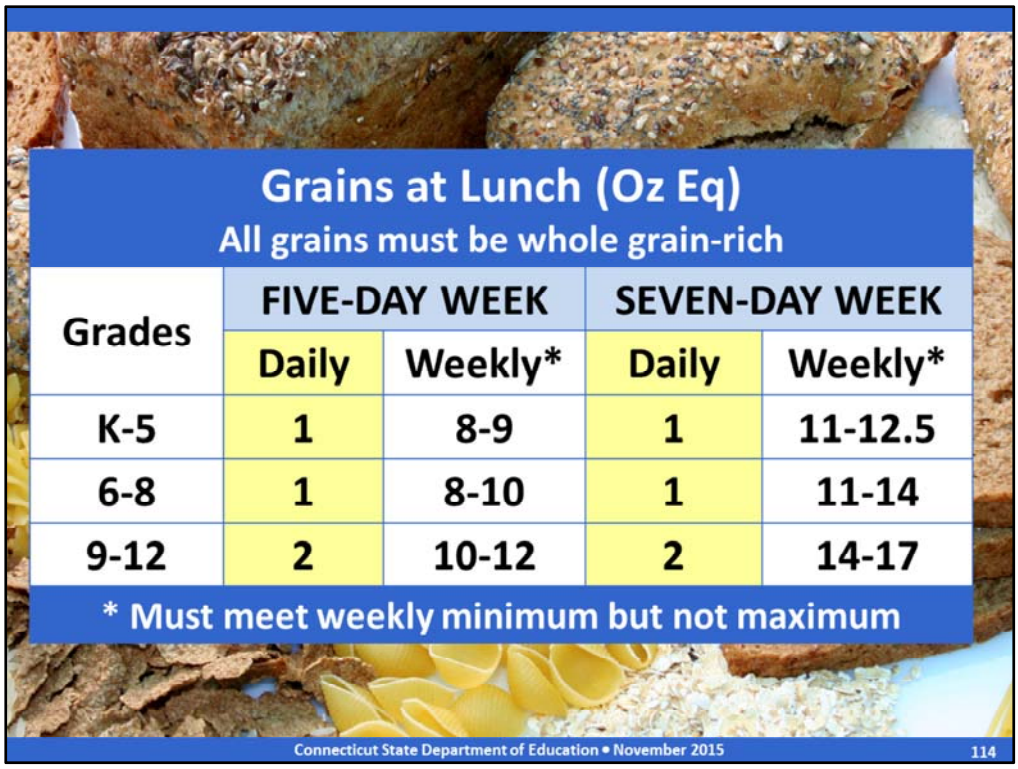
For more information, you can consult the grains section of the CSDE's *Menu Planning Guide for School Meals*. This resource is listed on your handout, "Resources for School Meals."




This slide shows the CSDE's handout, "Criteria for Whole Grain-rich Foods," which summarizes the criteria for determining whether a food meets the USDA whole grain-rich requirement. It is available on the CSDE's Crediting Foods Web page, at the link indicated on this slide.




This slide shows the ounce equivalents chart. You have it as a handout in your packets, and it is available on the CSDE's Crediting Foods Web page, at the link indicated on this slide.



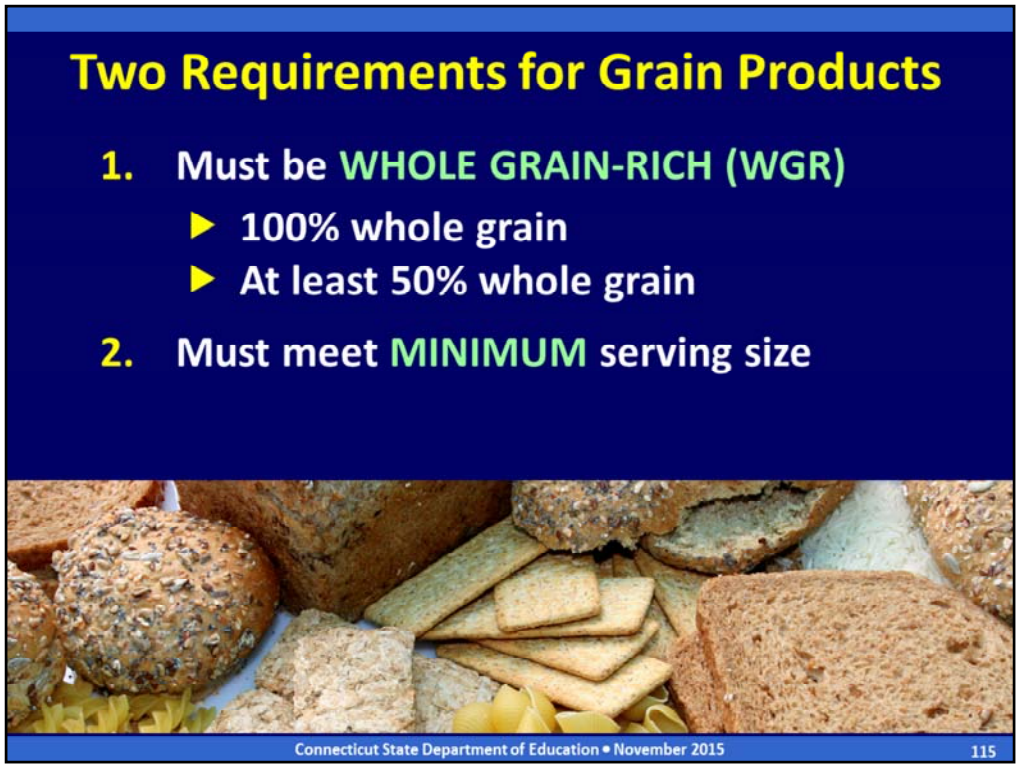

This chart shows the daily and weekly grain requirements at lunch for each grade group over a five-day and seven-day week. Schools must offer daily and weekly servings of grains. All grains must be whole grain-rich. We will look at the WGR requirements shortly.

- The **daily** requirement is 1 ounce equivalent for grades K-6 and 6-8, and 2 ounce equivalents for grades 9-12.
- The **weekly** requirement for a five-day week is a minimum of 8 ounce equivalents for grades K-5 and 6-8, and 10 ounce equivalents for grades 9-12. For a seven-day week (e.g., residential child care institutions), the minimum is 11 ounce equivalents for grades K-5 and 6-8, and 14 ounce equivalents for grades 9-12.

Schools cannot offer less than the minimum weekly grains requirement. As we saw earlier, the USDA eliminated the maximums for grains and meat/meat alternates so they are not required. You will still see them on the meal pattern because the regulations for the meal pattern have not changed.

Remember that menu planners are still encouraged to use the weekly maximums for grains as a **menu planning target** that can assist in offering balanced meals that meet the calorie, sodium and saturated fat requirements.

**INSTRUCTOR NOTES:** If there are no participants from RCCIs, do not review the information for seven-day weeks.

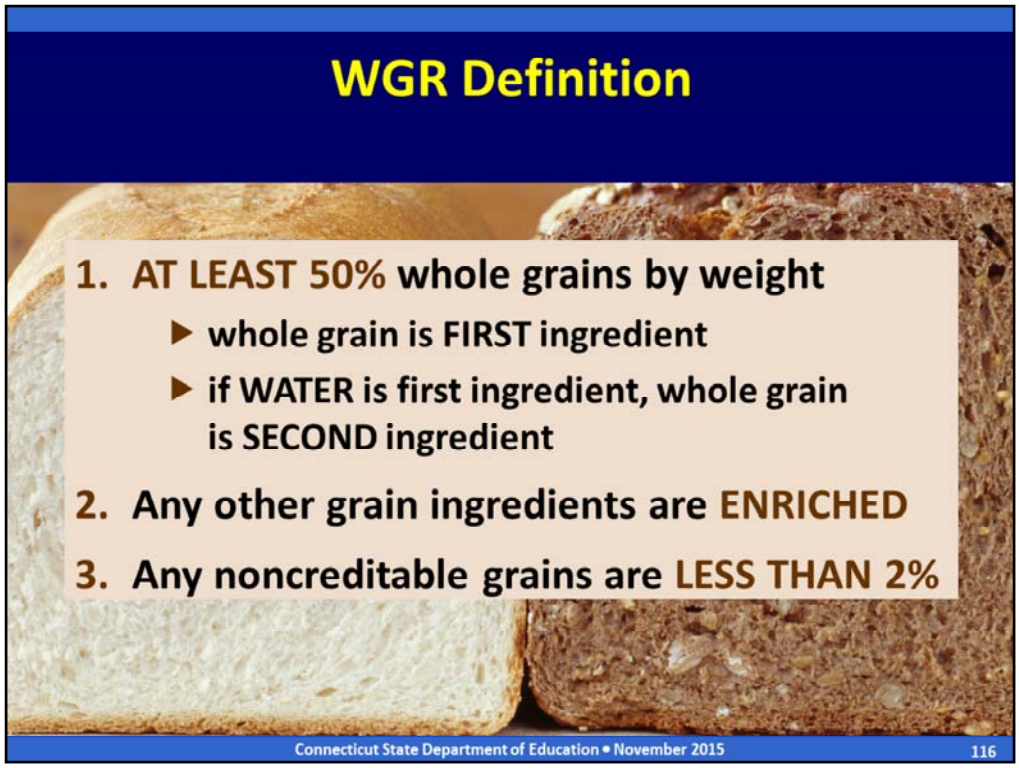



There are two requirements that all grains must meet to be served in the NSLP.

All grains offered at lunch must be whole-grain rich (WGR). Whole-grain rich foods include products that are **100 percent whole grain** (every grain in the product is a whole grain) and products that are **at least 50 percent** whole grain.

Products that are at least 50 percent whole grain must also meet some additional requirements to be considered whole-grain rich, which we will review in a minute.

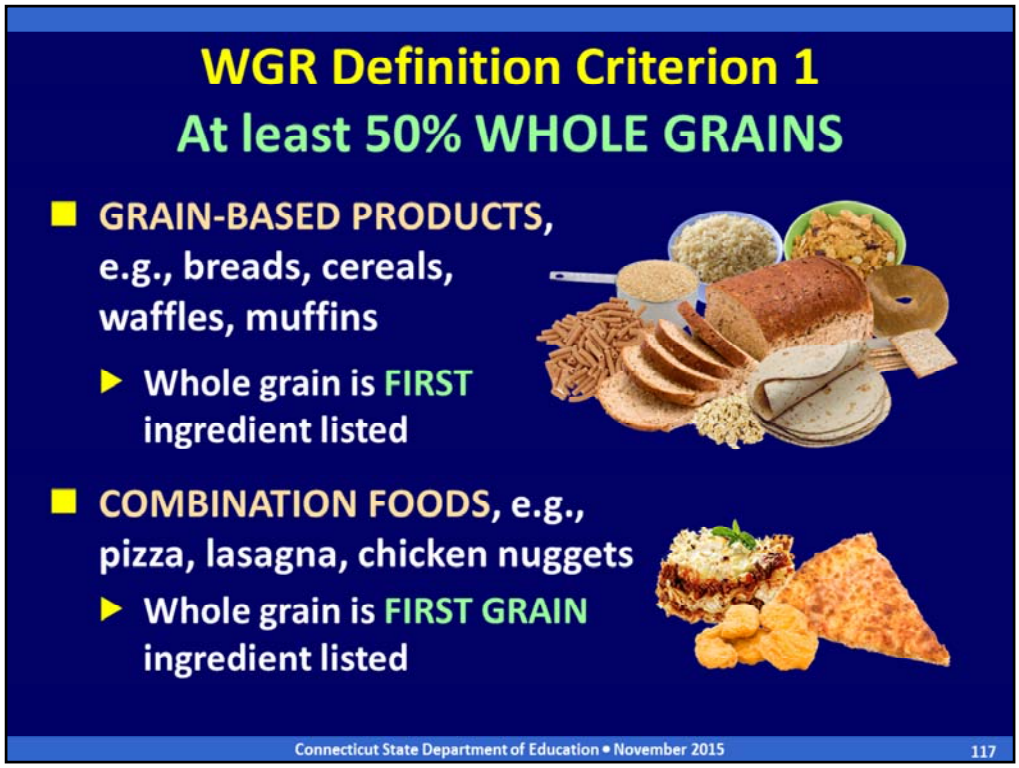
In addition, all grains must meet the minimum serving sizes specified in the NSLP meal pattern. We will look at each of these requirements in more detail.




It is important to understand the USDA definition of **WGR** so you can identify grain products that comply with this requirement. To meet the definition of WGR, a grain product must meet **three criteria**:

1. Contains at least 50 percent whole grains by weight. This means that a whole grain is the first ingredient or if water is the first ingredient, the second ingredient must be a whole grain.
2. Any remaining grain ingredients are enriched.
3. Any noncreditable grain ingredients are less than 2 percent of the product formula.

The product **must meet all three criteria** to be considered WGR. Let's take a look at each of these three criteria in more detail.

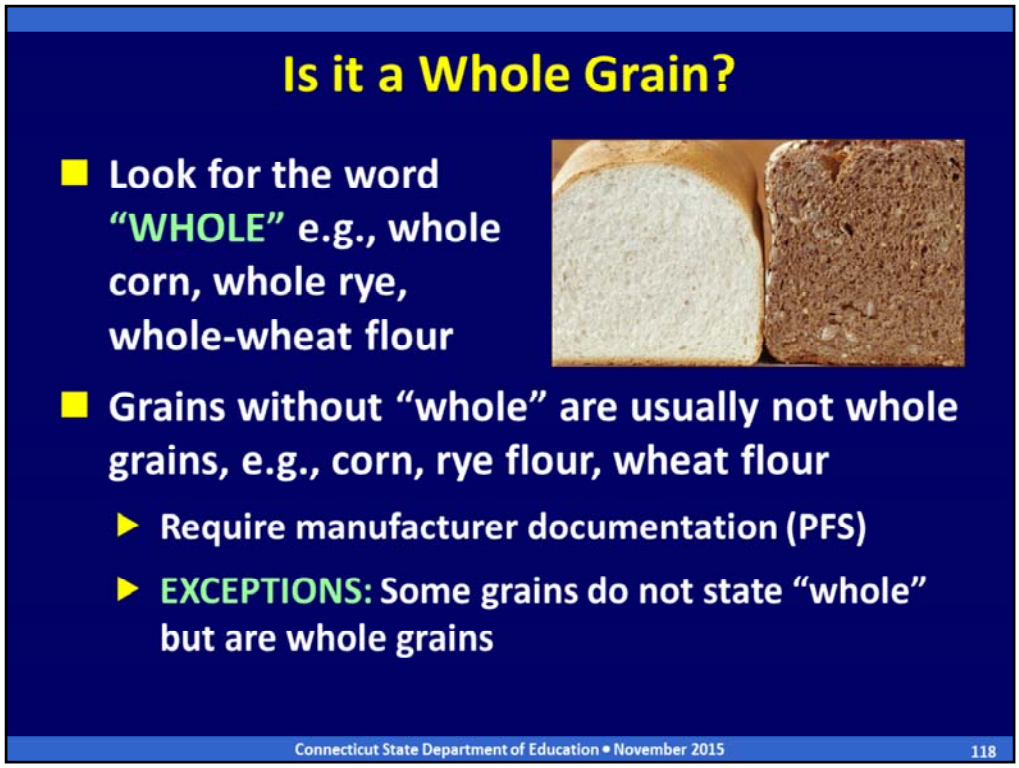



The first criterion is that the product contains at least 50 percent whole grains by weight. There are several methods to determine whether a product is at least 50 percent whole grains, but we will focus on the easiest and most practical method. This method is what we recommend schools use.

If a product **lists a whole grain first** on the product's ingredients statement, with an exception for water, it contains at least 50 percent whole grains. The USDA allows an exemption for the definition of whole-grain products. If the first ingredient of a grain product is water, a whole grain may be listed as the second ingredient and still meet the WGR criteria. This is based on the Dietary Guidelines' definition of WGR products.

- If the food item is a **grain-based product** (such as breads, cereals, waffles and muffins), it must have a whole grain listed as the **first ingredient** by weight on the ingredient label.

- If the food item is a **combination food** (such as pizza, lasagna or breaded chicken nuggets) a whole grain must be the primary **grain** ingredient by **weight**. In other words, a whole grain is the first **GRAIN** ingredient that appears in the list after any other nongrain ingredients.



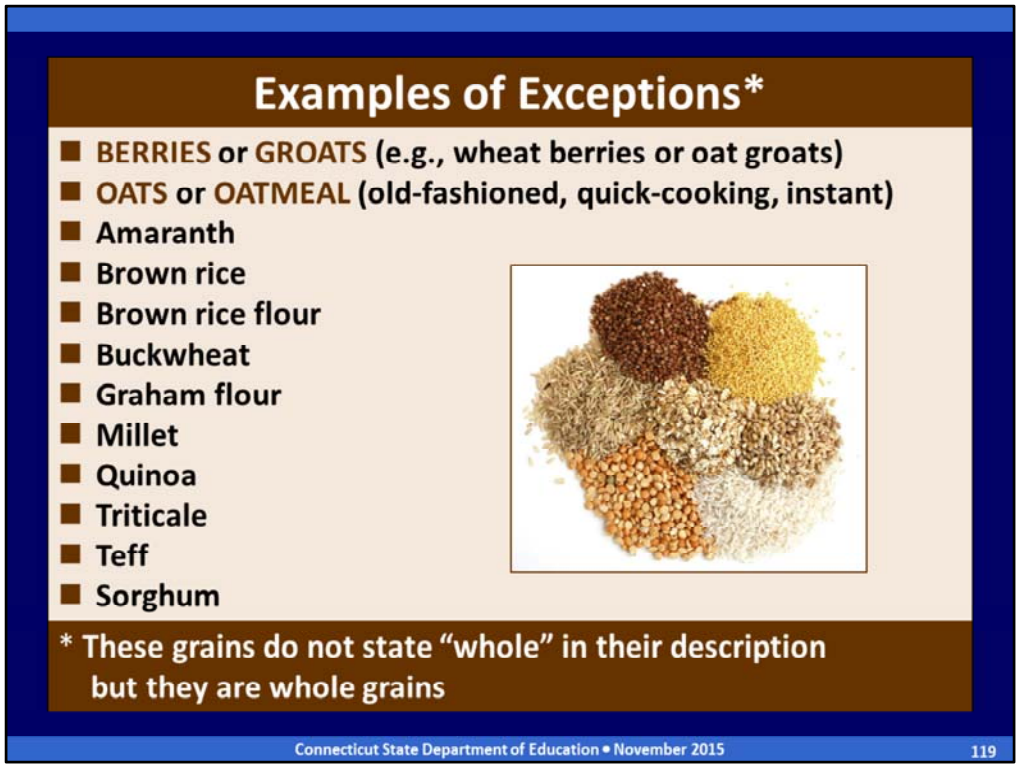

**Ask participants:** What are whole grains?

Whole grains are grains that consist of the entire kernel, including the starchy endosperm, the fiber-rich bran and the germ. Whole grains are nutrient rich, containing vitamins, minerals, fiber and antioxidants. All grains start out as whole grains, but many are processed to remove the bran and germ (e.g., white bread, white rice), which also removes many of the nutrients.

How do you determine whether a grain is a whole grain? Labeling and advertising is often confusing and misleading, making people think that many foods are whole grain when they are not. Careful label reading is needed.

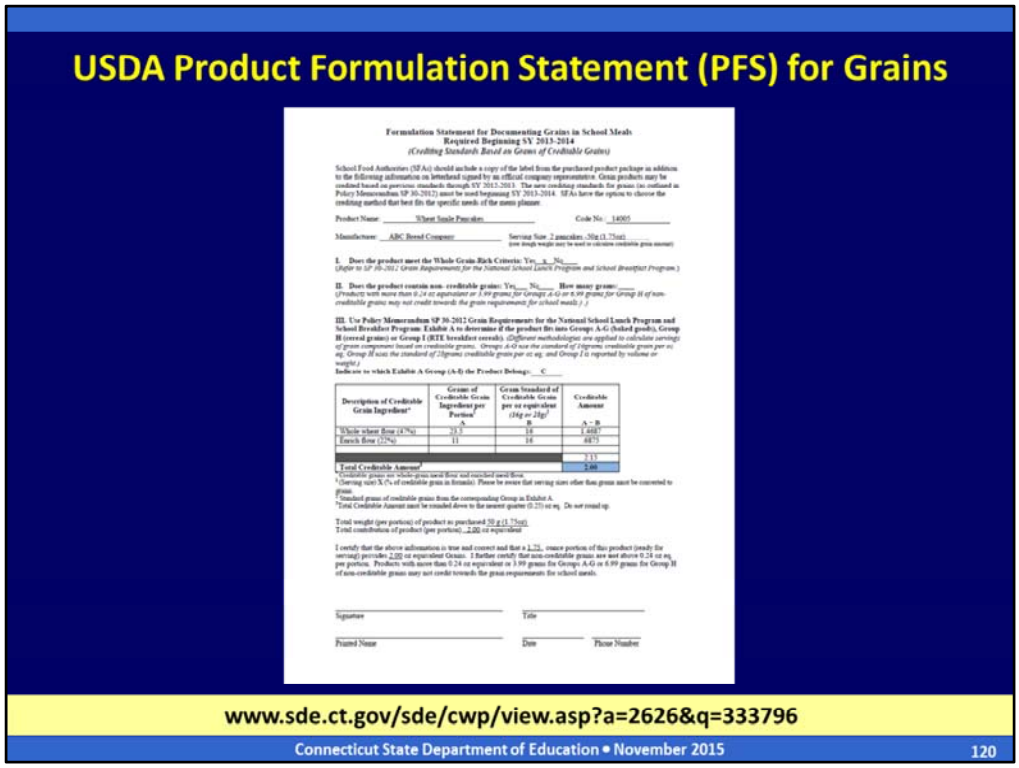
If a grain is listed in the ingredient statement without the word "whole," the product might not be whole grain, e.g., corn, rye flour and wheat flour. The menu planner must obtain additional information from the manufacturer to determine if grains with these terms are whole grains.

If you see "whole" corn, "whole" rye flour and "whole" wheat flour, you know it is a whole grain. If you don't see the word "whole," you will need additional documentation from the manufacturer to determine if these grains are whole, i.e., PFS.




However, there are exceptions. Some grain products do not state "whole" in their description but they are whole grains. These include the grain ingredients listed on this slide, such as oat groats, brown rice, millet and quinoa.

**INSTRUCTOR NOTES:** Mention just a few examples. Do not review all of the grains on the slide.



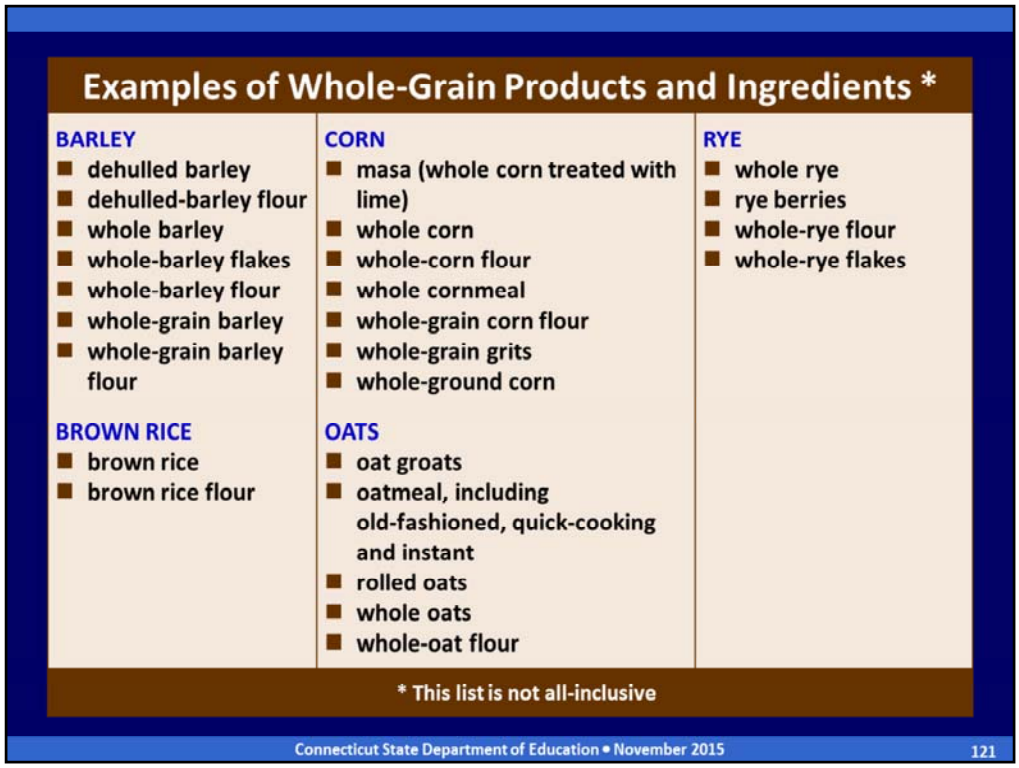

**Ask participants:** How many of you are familiar with product formulation statements? What is the difference between it and a Child Nutrition (CN) label?

This slide shows the USDA's sample PFS for grains. Product formulation statements are developed by manufacturers to provide specific information about their products. They generally include a detailed explanation of what the product contains and the amount of each ingredient in the product by weight. However, unlike CN labels:

- there is no standard information required for product formulation statements (each company can decide what to include);
- they are not approved or monitored by the USDA; and
- they do **not** provide any warranty against audit claims for reimbursable meals.

Product formulation statements are available for many types of food products. CN labels are only for meat/meat alternate products, but can include information on grains, fruits and vegetables if they are part of the meat/meat alternate product.

There is a packet of all the USDA sample product formulation statements on your table. The USDA has developed PFSs with completed samples for the grains, meat/meat alternates, vegetables and fruits. If you receive a PFS from a manufacturer, it must include the **same information** on the USDA sample PFS forms. These are available on the USDA's Web site, which you can link to from the CSDE's Crediting Foods Web page at the address indicated on the bottom of the slide.



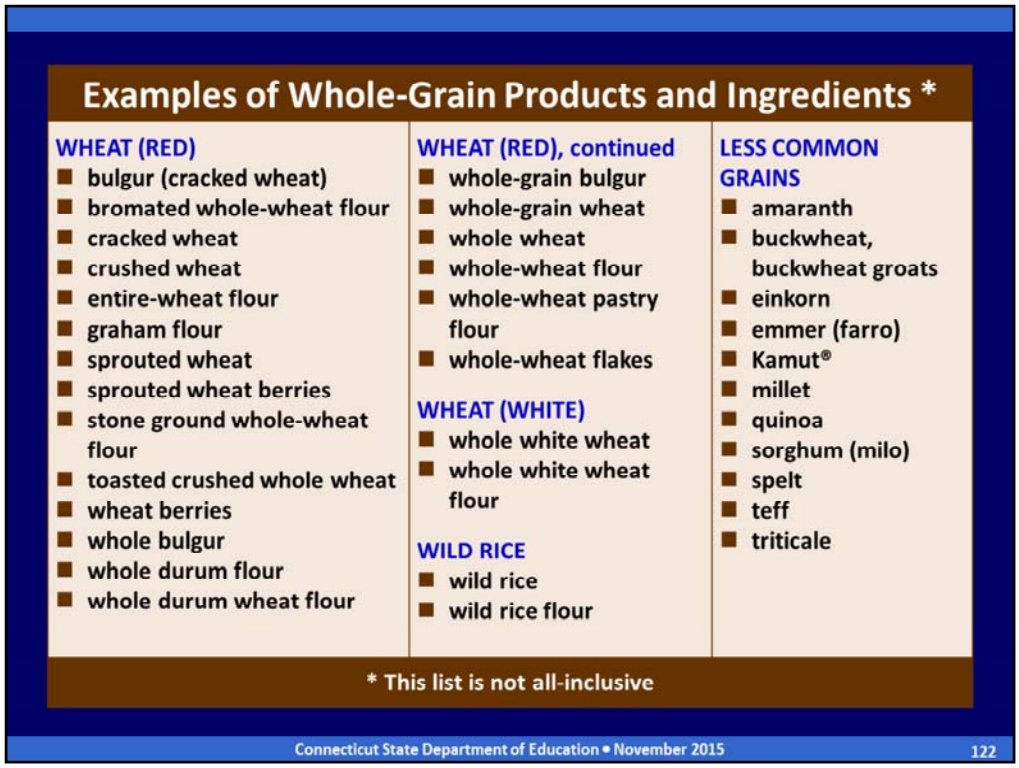

This chart lists examples of grain products and ingredients that are whole grains. This list may not contain all possible representations of whole grain ingredient names on food labels.

- If one of these terms is listed **first** on the ingredients statement, the product meets the requirement for at least 50 percent whole grain.
- If a whole grain is not the first ingredient but the **combined weight** of all whole grain ingredients is **more** than the weight of the first ingredient, the product meets the requirement for at least 50 percent whole grains.

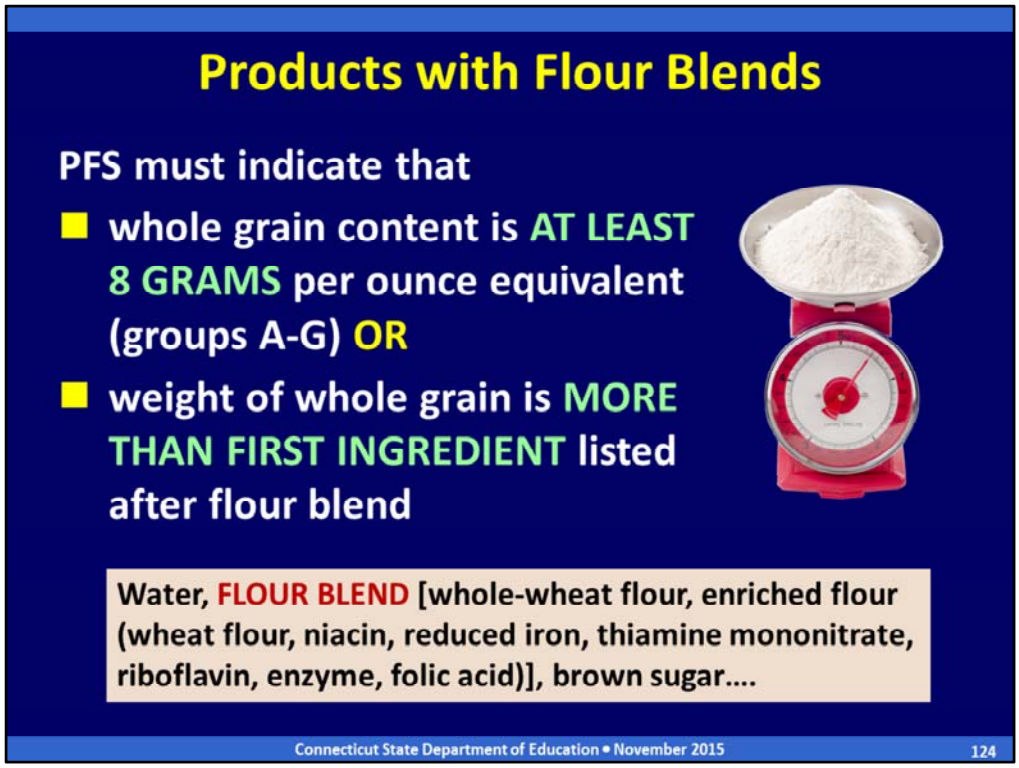
To be WGR, remember that the product must also meet the other two requirements (any other grains are enriched and any noncreditable grains are less than 2 percent).

This information is contained in the CSDE's handout, "Criteria for Whole Grain-rich Foods," which summarizes the criteria for determining whether a food meets the USDA WGR requirement. You have it in your handout packet and it is also available on the CSDE's Crediting Foods Web page, at the link indicated on the slide.

**INSTRUCTOR NOTES:** Hold up the handout so participants can see it.


Examples of Whole-Grain Products and Ingredients *
WHEAT (RED)
bulgur (cracked wheat)
bromated whole-wheat flour
cracked wheat
crushed wheat
entire-wheat flour
graham flour
sprouted wheat
sprouted wheat berries
stone ground whole-wheat flour
toasted crushed whole wheat
wheat berries
whole bulgur
whole durum flour
whole durum wheat flour
WHEAT (RED), continued
whole-grain bulgur
whole-grain wheat
whole wheat
whole-wheat flour
whole-wheat pastry flour
whole-wheat flakes
WHEAT (WHITE)
whole white wheat
whole white wheat flour
WILD RICE
wild rice
wild rice flour
LESS COMMON GRAINS
amaranth
buckwheat, buckwheat groats
einkorn
emmer (farro)
Kamut®
millet
quinoa
sorghum (milo)
spelt
teff
triticale
* This list is not all-inclusive
Connecticut State Department of Education • November 2015
122

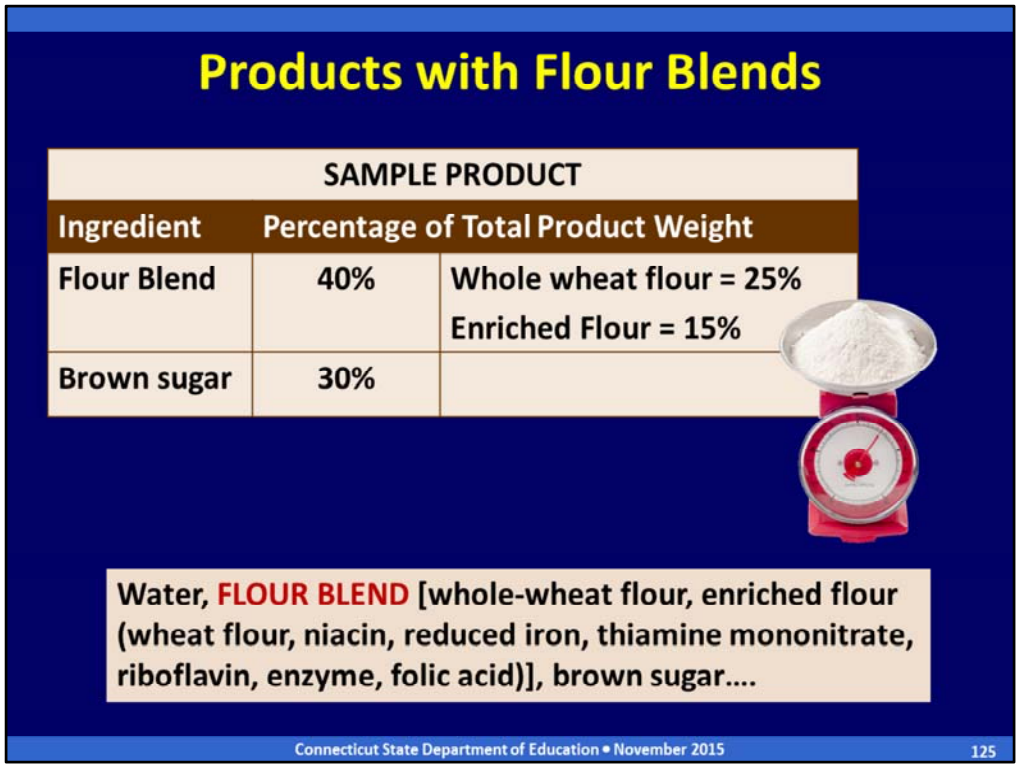

For more information on how to identify whole grains, refer to the CSDE's handout, Identifying Whole Grains. It is available on the CSDE's Crediting Foods Web page, at the link indicated on this slide.




When products contain a flour blend grouped together with parentheses, e.g., *"flour blend (whole wheat flour, enriched flour),"* the menu planner must obtain a PFS from the manufacturer that documents the **weight** of each creditable grain ingredient.

The PFS must indicate that either the whole grain content is at least 8 grams per ounce equivalent (groups A-G) or that the weight of the whole grain is more than the first ingredient listed after the flour blend.

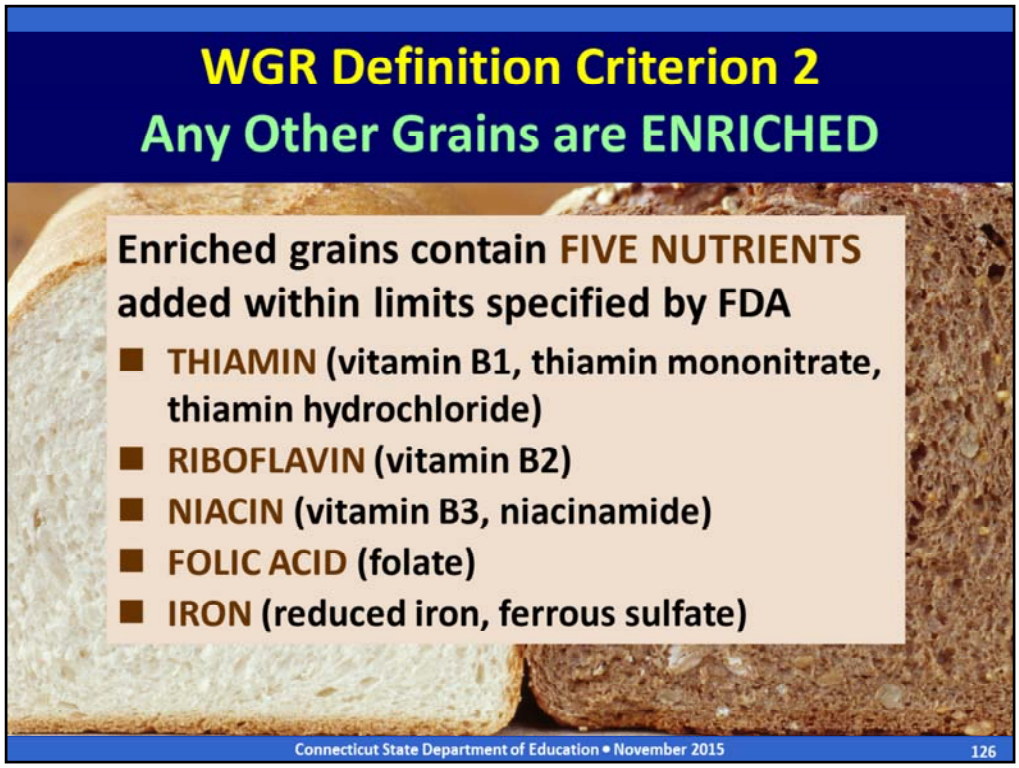
This slide shows an example of a flour blend listed in the ingredients statement.




From the ingredients statement, the menu planner can tell that the **total weight** of the flour blend (whole-wheat flour and enriched flour) is more than the weight of the brown sugar. However, the menu planner cannot tell the weight of **each individual ingredient** in the flour blend.

For example, if the flour blend is 40 percent of the product's total weight (25 percent whole-wheat flour and 15 percent enriched flour) and sugar is 30 percent, the whole-wheat flour is not the greatest ingredient by weight.

To determine if this product meets the criteria for at least 50 percent whole grains, the manufacturer's PFS must document that the weight of the whole-wheat flour is more than the weight of the brown sugar.



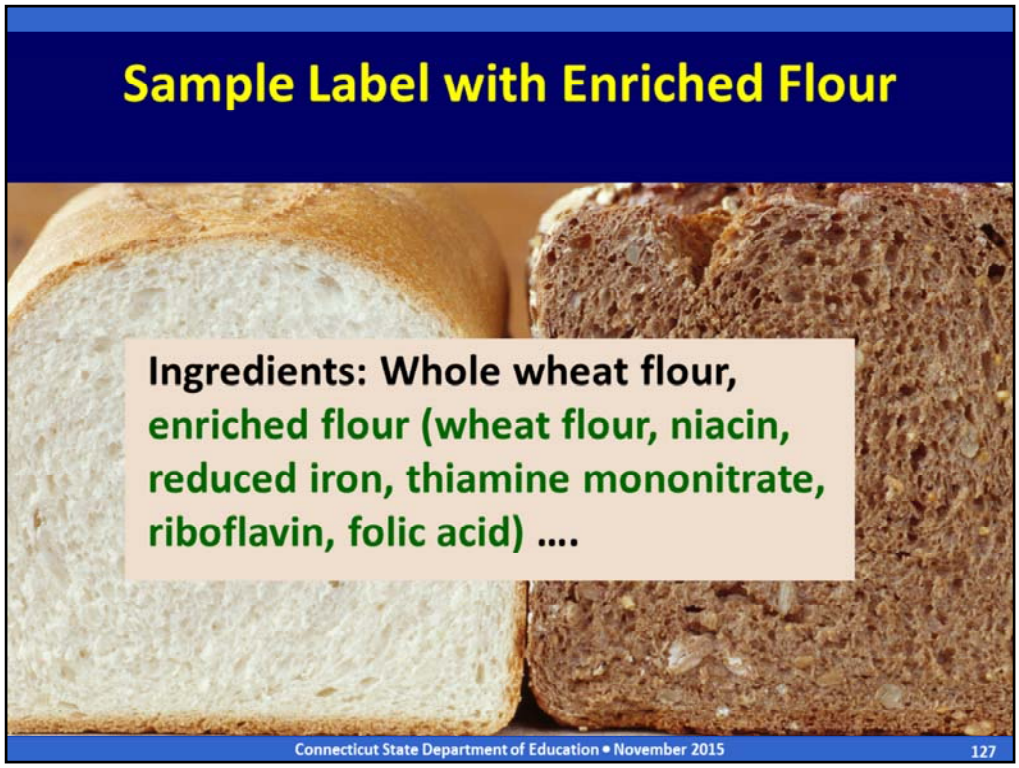

The second WGR criterion is that any other grains in the product are enriched. Enriched grains are **refined grains** (such as wheat, rice and corn) and grain products (such as cereal, pasta and bread) that have **vitamins and minerals** added to replace the nutrients lost during processing.

Enriched products are **not nutritionally equivalent** to whole-grain products because enrichment does not replace all the nutrients, fiber and other health-enhancing substances originally present in the whole grain.

Enriched grains have **five nutrients** added within limits specified by the Food and Drug Administration (FDA):

- thiamin (vitamin $B_1$, thiamin mononitrate, thiamin hydrochloride);
- riboflavin (vitamin $B_2$);
- niacin (vitamin $B_3$, niacinamide);
- folic acid (folate); and
- iron (reduced iron, ferrous sulfate).

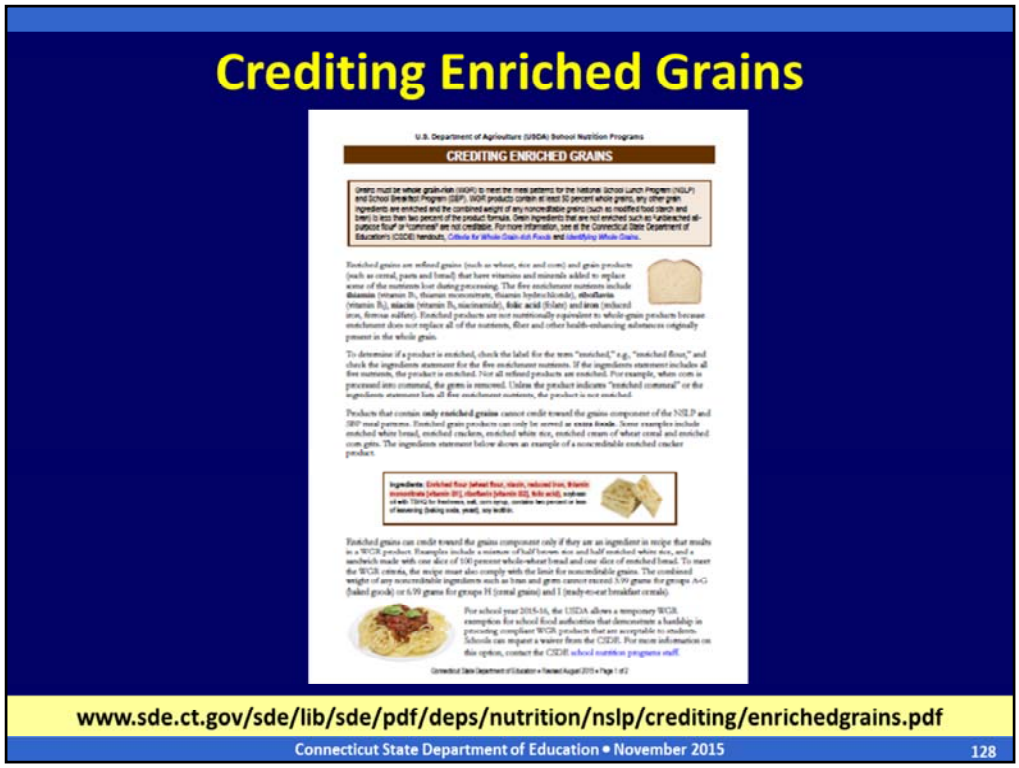
**INSTRUCTOR NOTES:** Do not read all of the alternate names for each nutrient. Use the terms thiamin, riboflavin, niacin, folic acid and iron, and explain that the other terms in parenthesis are other names for these nutrients that may be found on food labels.



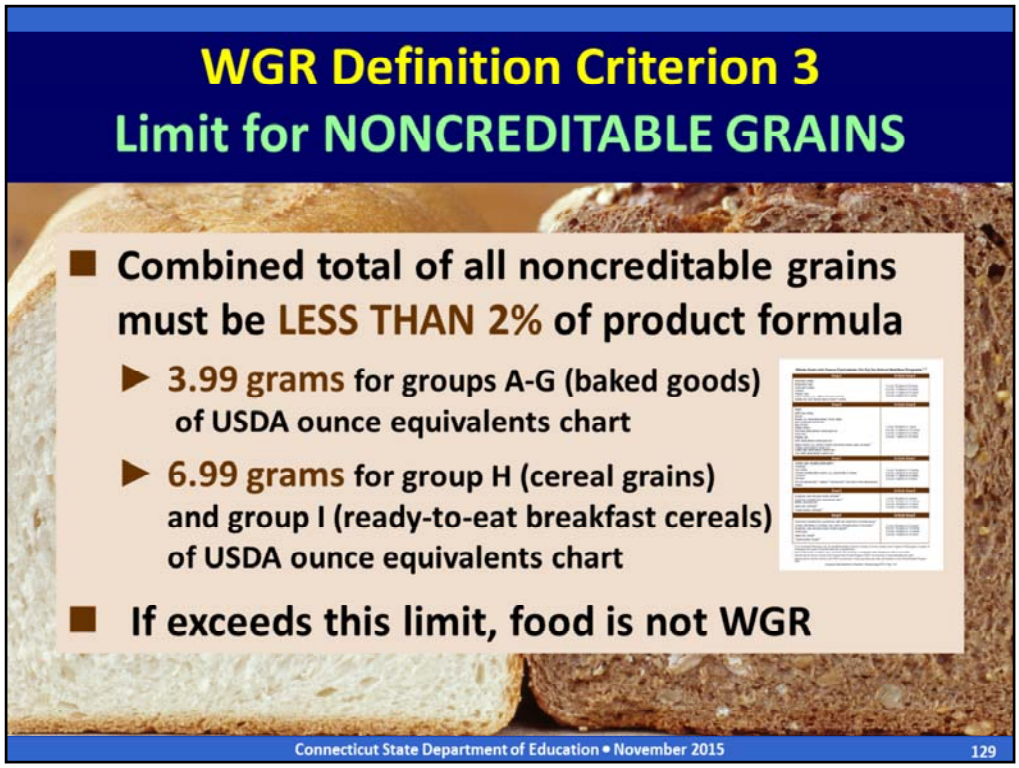

This slide shows an example of an ingredients statement that contains enriched flour. You can tell it is enriched because it states "enriched" and list the five enrichment nutrients in parentheses.

To determine whether a product is enriched: check the label for the term "enriched," e.g., "enriched flour" or check the ingredients statement for the five enrichment nutrients, e.g., "flour, niacin, ferrous sulfate, thiamine mononitrate, riboflavin, folic acid." If the ingredients statement includes all five nutrients (iron, thiamin, riboflavin, niacin and folic acid), the product is enriched.

Not all refined products are enriched. For example, when corn is processed into cornmeal, the germ of the grain is removed. Unless the product indicates "enriched cornmeal" or the ingredients statement lists all five enrichment nutrients, the product is not enriched.




This handout provides information on how to identify enriched grains. It is available on the CSDE's Crediting Foods Web page, at the link indicated on this slide.




The third WGR criterion is the limit for noncreditable grains. Only whole and enriched grains are creditable. Noncreditable ingredients cannot credit (count) toward the grains component or the WGR requirement.

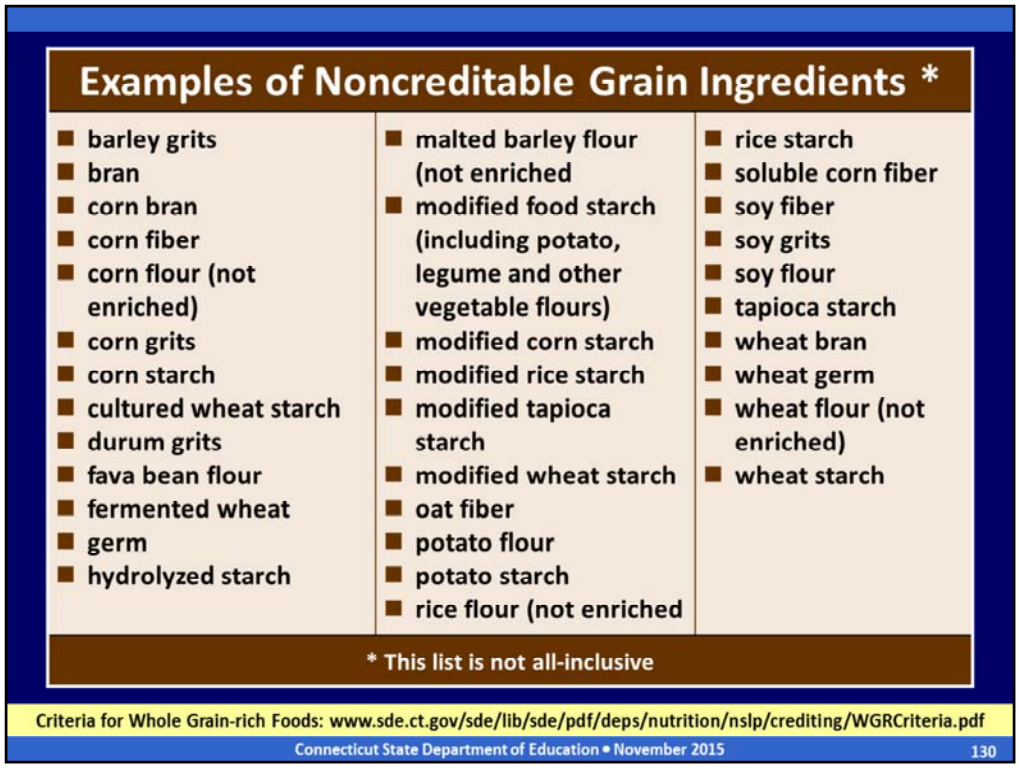
If grain products include these ingredients they must be less than two percent of the product formula for the product to meet the WGR definition. To meet this limit, the combined total of all noncreditable grains cannot exceed:

- **3.99 grams** for groups A-G (baked goods) of the USDA ounce equivalents chart; or
- **6.99 grams** for groups H (cereal grains) and group I (ready-to-eat breakfast cereals) of the USDA ounce equivalents chart.

We will talk more about the ounce equivalents chart later on.

If noncreditable ingredients exceed the specified limits, the entire product is noncreditable, i.e., the grain product does **not** count as a WGR food and cannot be used as part of the grains component for school meals.

It could only be served as an "extra" item, but then must count toward the weekly dietary specifications (calories, saturated fat and sodium) and must also contain zero grams of trans fat.



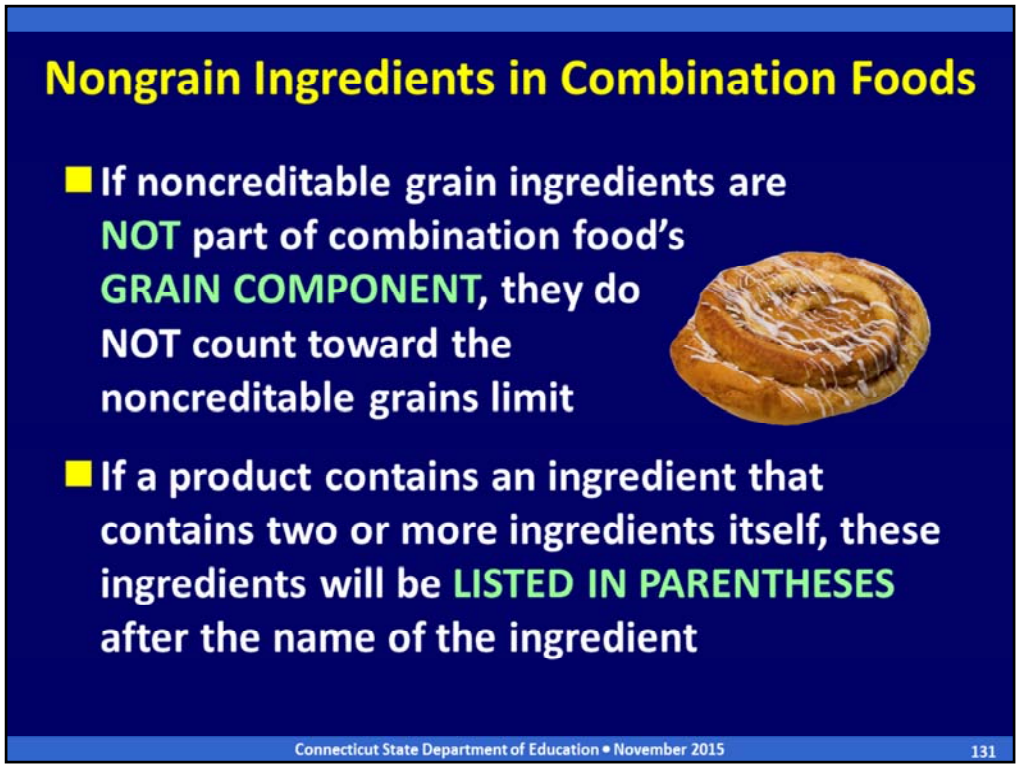

This chart lists examples of noncreditable grain ingredients. This list may not contain all possible representations of noncreditable grain ingredients on food labels.

This information is contained in the CSDE's handout, "Criteria for Whole Grain-rich Foods," which summarizes the criteria for determining whether a food meets the USDA WGR requirement. You have it in your handout packet and it is also available on the CSDE's Crediting Foods Web page, at the link indicated on the slide.

**INSTRUCTOR NOTES:** Some ingredients are not creditable as grains but are **not** included in the calculation of a product's total noncreditable grain ingredients. For example: cellulose fiber, chicory extract, chicory root, citrus fiber, corn dextrin, fibersol, inulin, malt, malt powder, maltodextrin, pea fiber, powdered cellulose and wheat gluten. If these ingredients are listed anywhere in the product's ingredient statement, they can be disregarded. This information is in the CSDE's handout, Criteria for Whole Grain-rich Foods.

The definition below is only for your for background information. You do not need to provide this information unless someone asks a question about it.

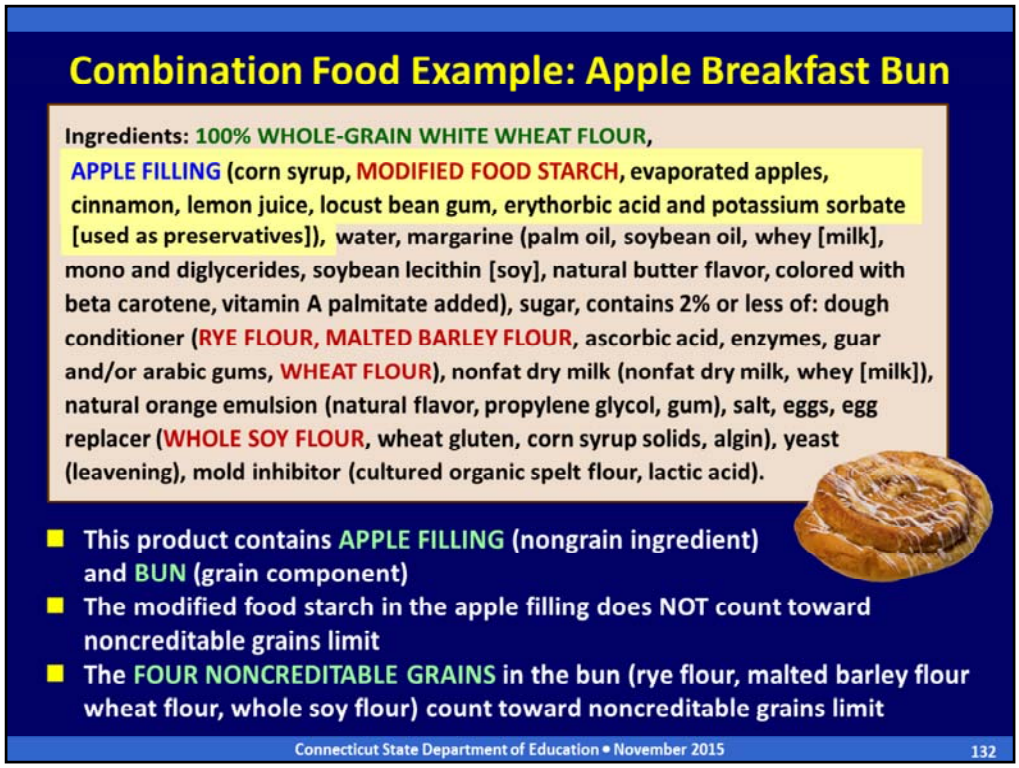
**Wheat gluten** is the protein component of the wheat grain, that helps baked goods hold their shape. It is neither a creditable or noncreditable grain. When the glutens in wheat are stretched out through the kneading or mixing process, they form little pockets which can then be inflated by the gases released by the leavening agent. When these air pockets inflate, the dough expands or rise. When baked, gluten hardens, which allows the bread to hold its shape and gives it its firm texture.




The only exception to the noncreditable grains limit is fortified breakfast cereals that contain a whole grain as the first ingredient. The USDA does not require these cereals to limit the amount of noncreditable grains such as bran or germ.

To be considered WGR, ready-to-eat breakfast cereals must list a whole grain as the **first** ingredient and the cereal must be **fortified**. Cereals are not required to be fortified if they are 100 percent whole grain.

If a cereal bar is made with a fortified breakfast cereal that contains a whole grain as the first ingredient, any noncreditable grains listed in the ingredients for the **cereal** do **not** count toward the limit for noncreditable grains. Noncreditable grains are not limited for cereals that list a whole grain as the first ingredient and are fortified.




This slide shows an example of a combination food that contains a grain component (bun) and nongrain ingredient (apple filling). The apple filling ingredients are highlighted in yellow.

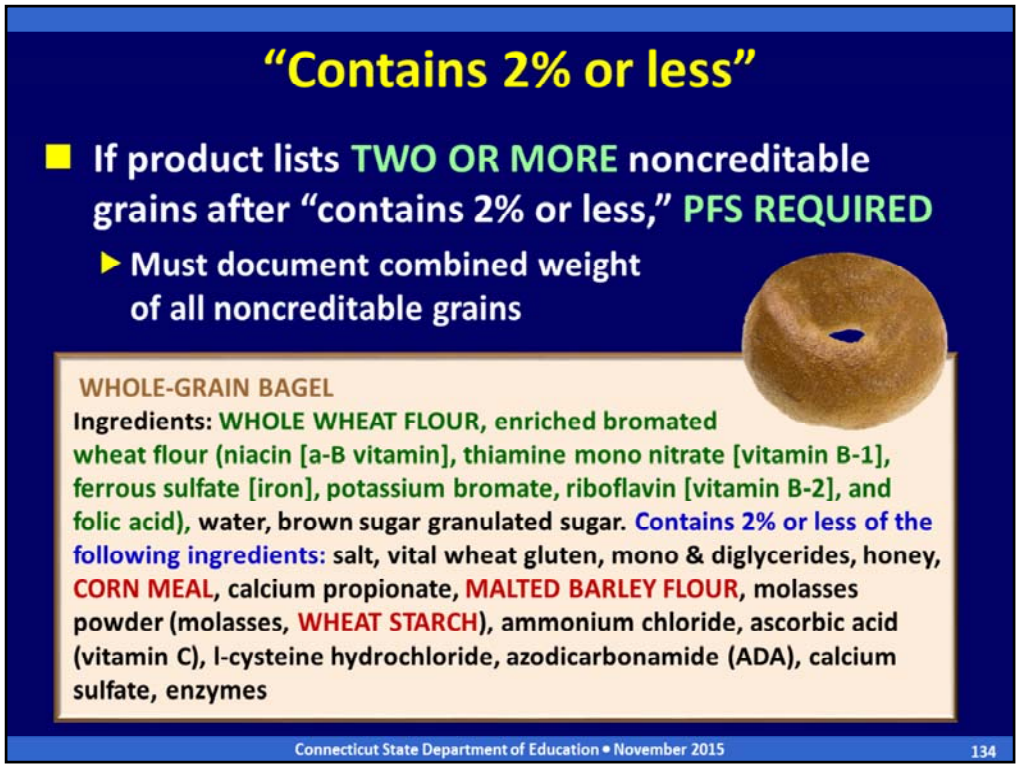
The modified food starch in the apple filling does **not** count toward noncreditable grains limit because the apple filling is not an ingredient of the grain component.

The **four noncreditable grains** in the bun (rye flour, malted barley flour wheat flour, whole soy flour) count toward noncreditable grains limit because they are ingredients of the grain component.


This slide shows an example of an ingredients statement that states "contains 2% or less of each of the following."

When you see this statement on a label followed by only ONE noncreditable grain ingredient, the noncreditable grain ingredient is low enough that it does not exceed the required limit (3.99 grams for groups A-G or 6.99 grams for groups H-I).

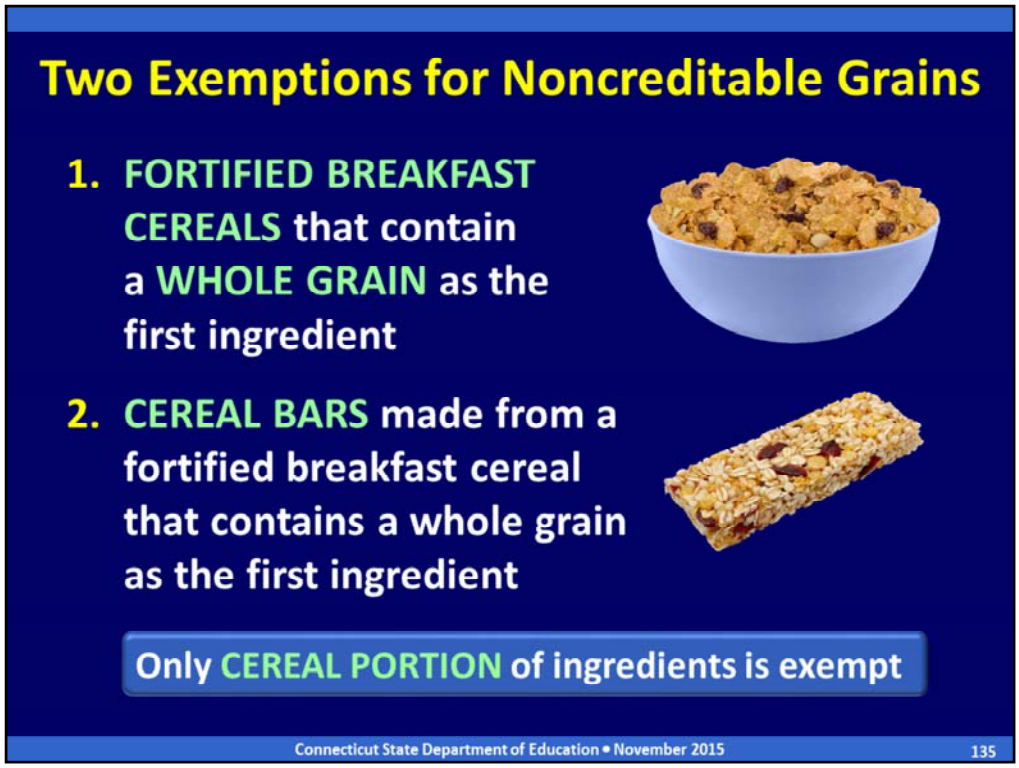
This ingredients statement shows an example. This whole-wheat bagel contains whole wheat flour as the first and only grain ingredient (indicated in green). This product contains only one source of noncreditable grains (yellow corn flour, indicated in red uppercase), listed after the statement "contains 2% or less of." Therefore, this product meets the WGR requirement and a PFS is not required.




However, if you see **two or more** noncreditable grain ingredients after the statement that says "contains 2% or less of each of the following," it is not possible to know if the **combined weight** of all noncreditable grains is less than 2 percent. Therefore, you must obtain a PFS from the manufacturer to document the combined weight of all noncreditable grains.

This ingredients statement shows an example. This whole-wheat bagel contains whole wheat flour as the first ingredient and the only other grain ingredient is enriched bleached flour (indicated in green). However, this product contains **three sources** of noncreditable grains (corn meal, malted barley flour and wheat starch), indicated in red uppercase.

To determine whether this product meets the WGR requirement, schools must obtain a PFS that documents that the **combined weight** of all three noncreditable grains is less than 3.99 grams.

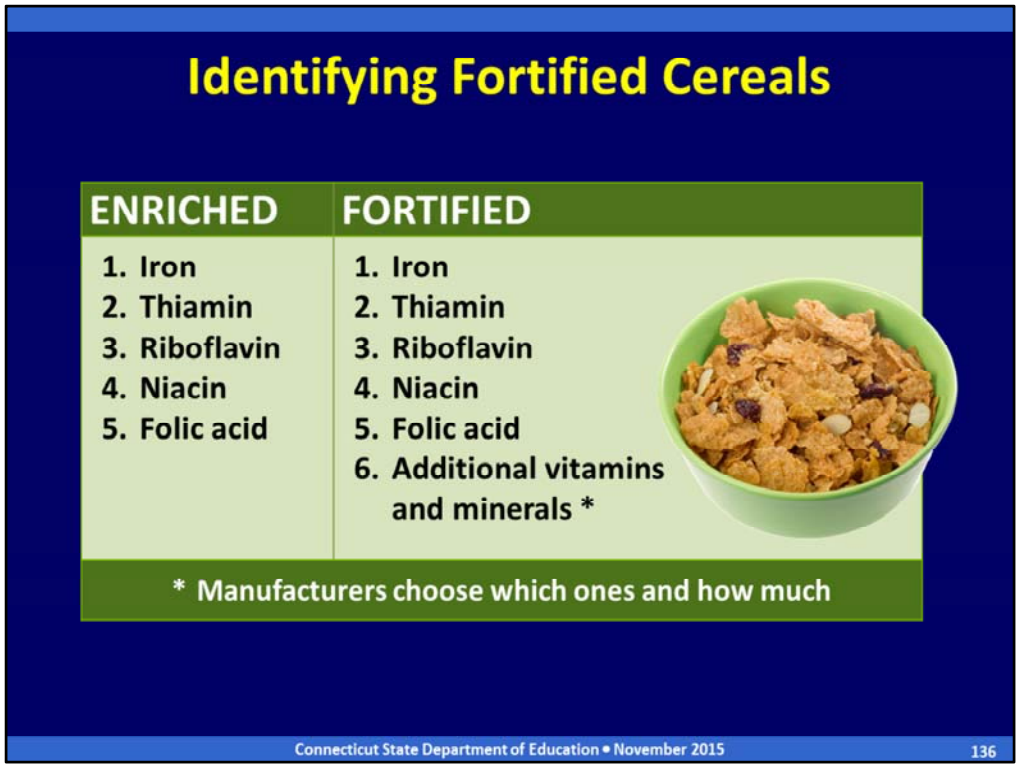



The only exception to the noncreditable grains limit is fortified breakfast cereals that contain a whole grain as the first ingredient. The USDA does not require these cereals to limit the amount of noncreditable grains such as bran or germ.

To be considered WGR, ready-to-eat breakfast cereals must list a whole grain as the first ingredient and the cereal must be fortified. Cereals are not required to be fortified if they are 100 percent whole grain.

If a cereal bar is made with a fortified breakfast cereal that contains a whole grain as the first ingredient, any noncreditable grains listed in the ingredients for the **cereal** do **not** count toward the limit for noncreditable grains. Noncreditable grains are not limited for cereals that list a whole grain as the first ingredient and are fortified.

Only the cereal portion is exempt. Any noncreditable grains listed outside of the cereal ingredients count toward the limit.



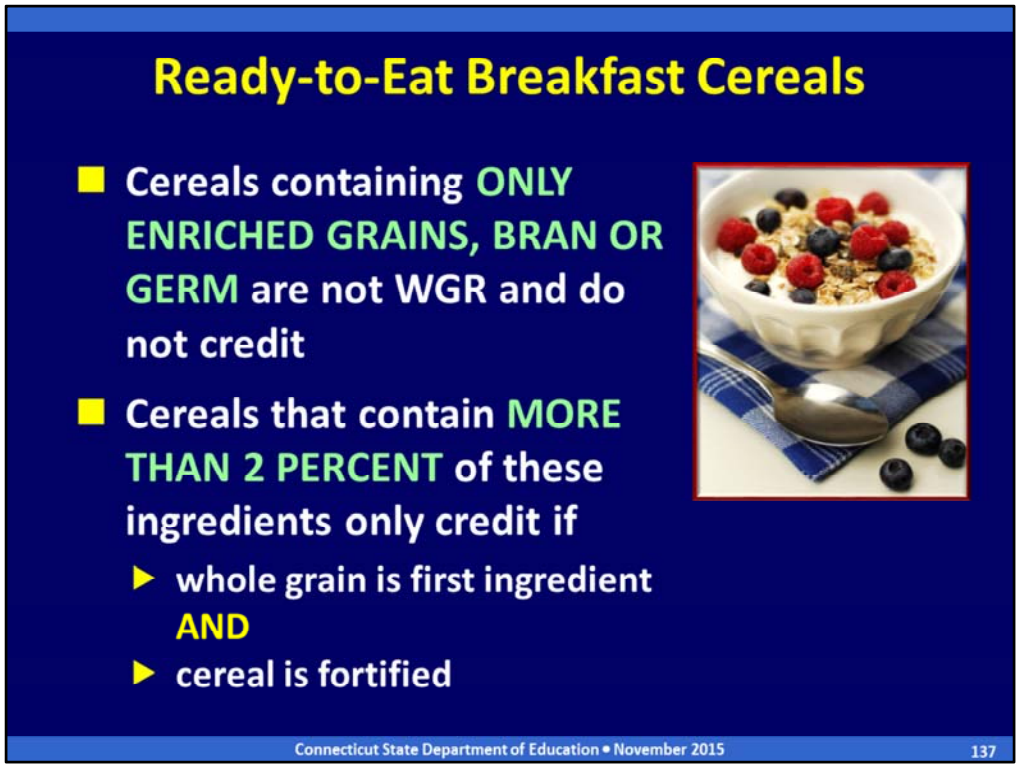

How do you know if a breakfast cereal is fortified? Fortified breakfast cereals contain the five enrichment nutrients lost during the refining process (iron, thiamin, riboflavin, niacin and folic acid), as well as additional vitamins and minerals that do not exist naturally in grains.

This slide shows the difference between enrichment and fortification. To determine whether a ready-to-eat breakfast cereal is fortified, check the ingredients statement. Fortified cereals must contain:

- the **five enrichment nutrients** (iron, thiamin, riboflavin, niacin and folic acid); and
- **additional nutrients** such as calcium and vitamins A and C.

When fortification nutrients are added to cereals, they will either be listed directly in the ingredients statement or in the ingredients statement under "Vitamins and Minerals."

Manufacturers can choose which additional nutrients to use for fortification. Different cereal brands may list different fortification nutrients. The USDA does not specify a minimum number of nutrients or a minimum percentage for the level of fortification for breakfast cereals.

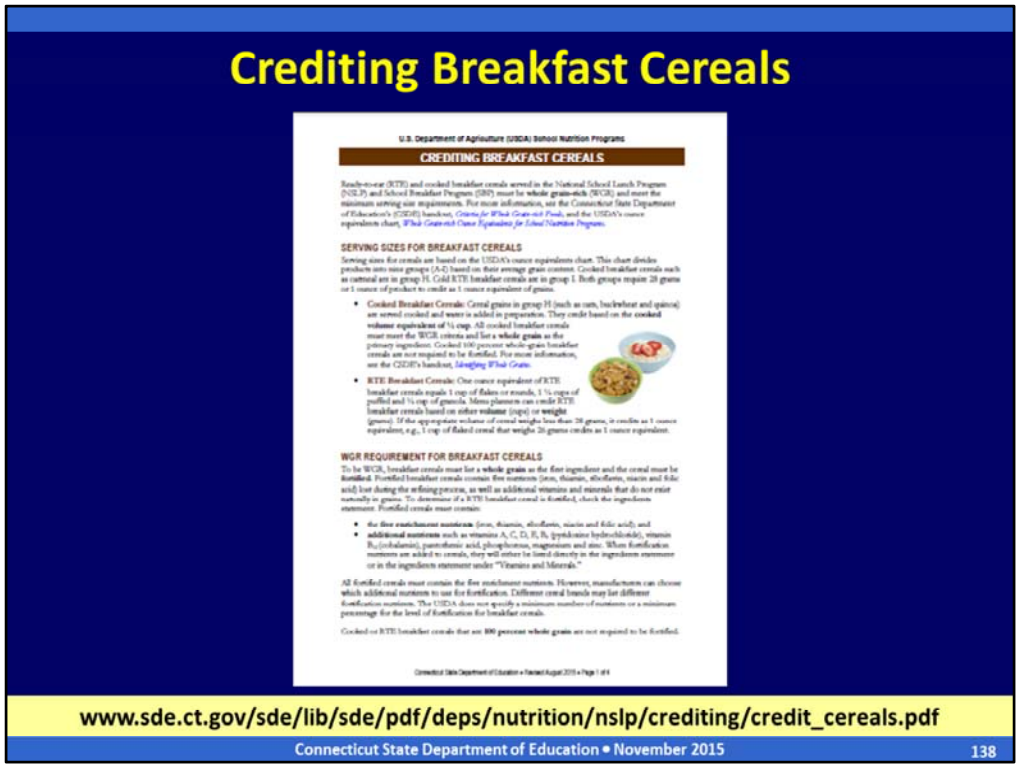



Cereal products that contain only enriched grains, bran or germ cannot credit toward the grains component because they are not WGR. Examples include:

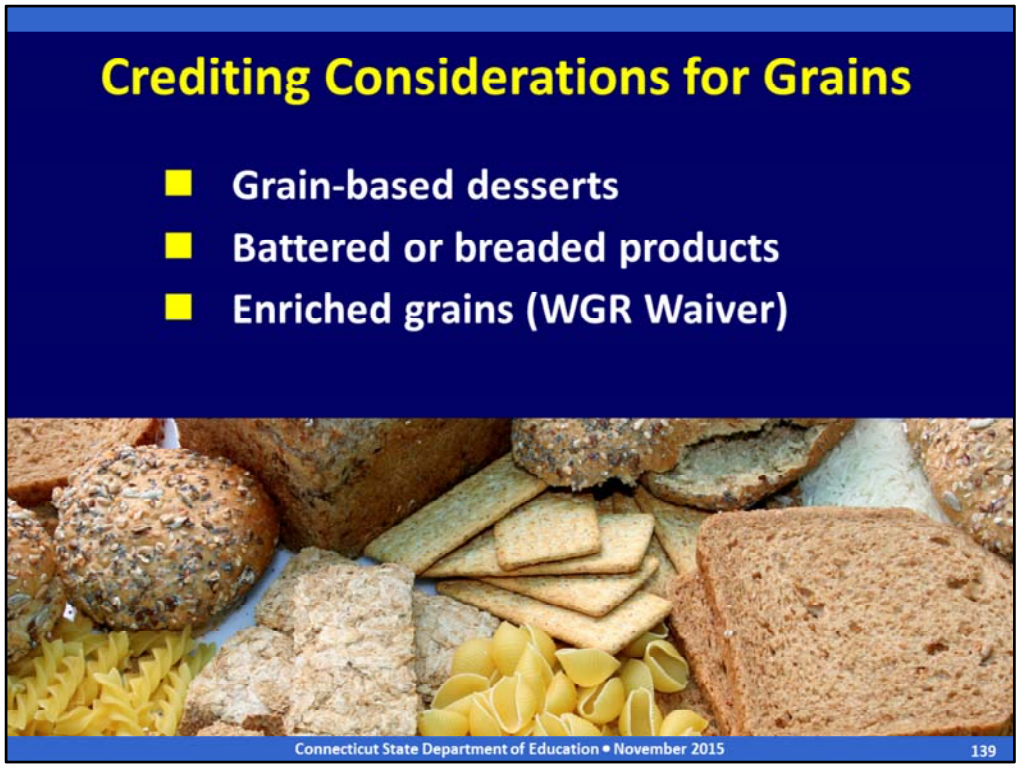
- enriched cream of wheat;
- enriched farina;
- 100 percent bran cereals (not fortified raisin bran cereals); and
- wheat germ.

Bran is a noncreditable grain ingredient. Ready-to-eat breakfast cereals containing 100 percent bran are not creditable, even if they are fortified.

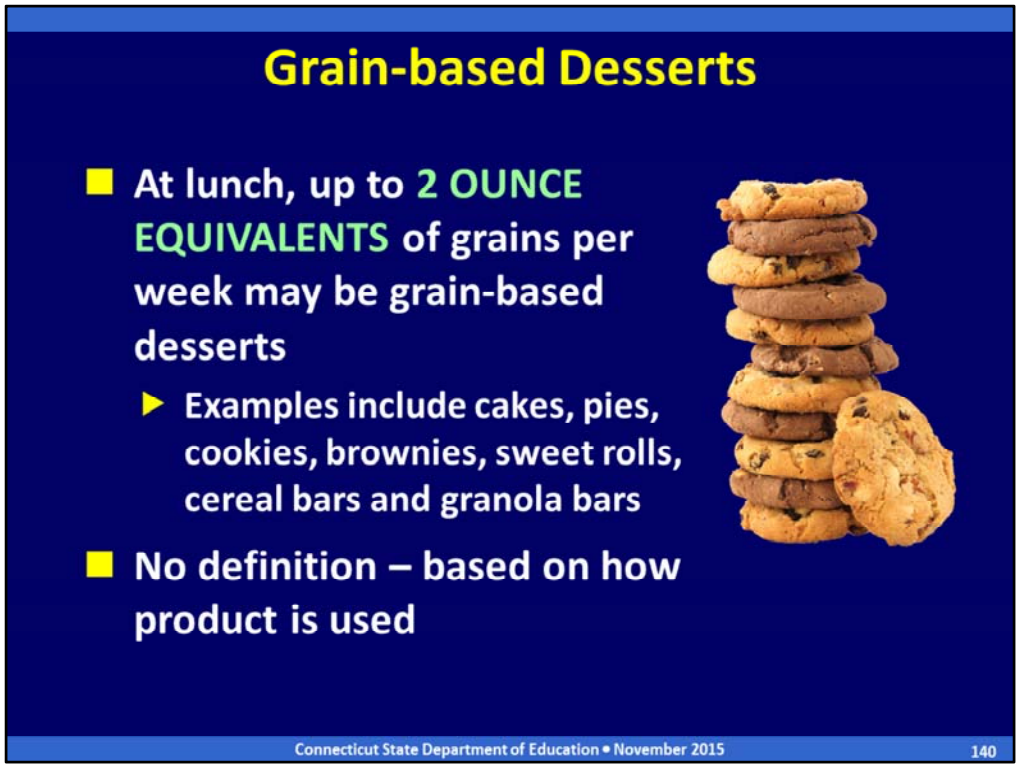
However, cereals such as raisin bran or bran flakes that contain bran at levels of more than two percent of the product formula are creditable if the cereal contains a **whole grain as the first ingredient** and the cereal is **fortified**.




This handout provides more information on identifying breakfast cereals that meet the WGR requirement. It is available on the CSDE's Crediting Foods Web page, at the link indicated on this slide.




There are some additional considerations for determining how to count grains toward the meal pattern requirements. Let's look at the requirements for grain-based desserts, battered or breaded products and enriched pasta.



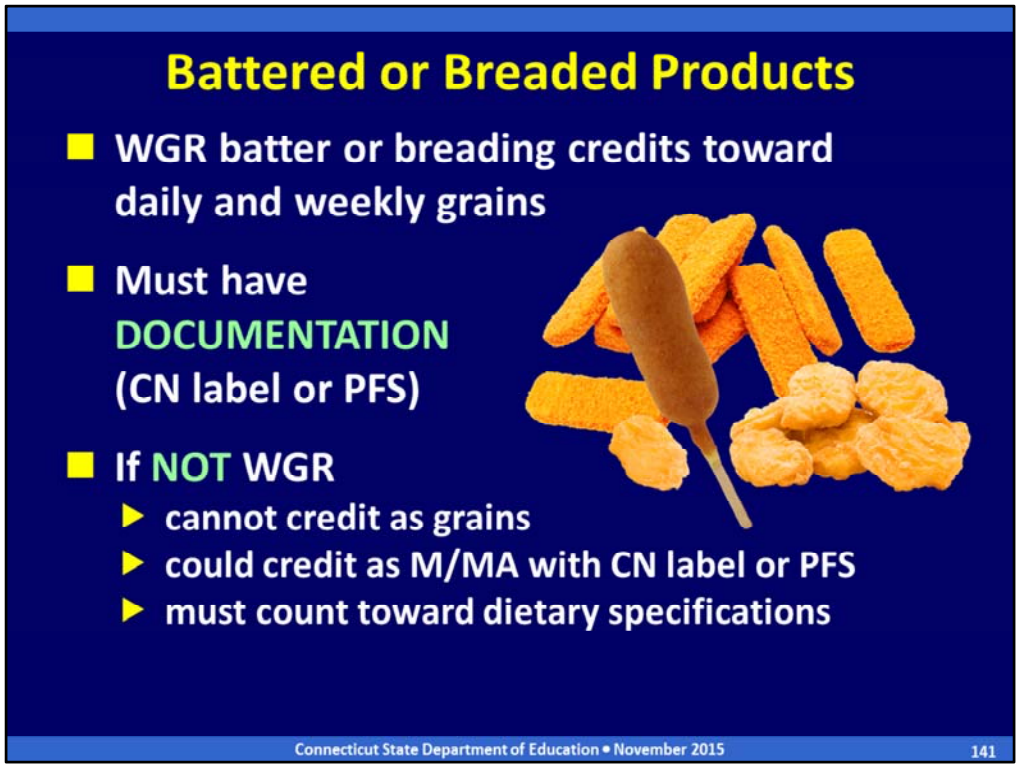

The meal patterns have limits for grain-based desserts. Of the weekly total of grains for lunch, the USDA allows **up to 2 ounce equivalents** of grains in the form of creditable grain-based desserts. For example, a 2-ounce equivalent WGR dessert may be offered once weekly or a 0.5-ounce equivalent dessert may be offered four times weekly.

The USDA does not define a specific amount of sugar, fat or other nutrients that qualify a grain product as a dessert. Whether a grain-based product is a dessert depends on how the product is used in the meal and how children consume the product. The following items are typically served as desserts: cakes, pies, cookies, brownies and sweet rolls. These foods are often high in solid fats and added sugars.

Crackers and cookies do not have a standard of identity, so manufacturers may come up with fanciful names that could mislead menu planners into serving products that may not be appropriate. The menu planner should use typical perceptions of the product as a way to determine how to menu the item. Be aware that even if a product is not labeled as a traditional dessert or sweet item, higher levels of sugar, fat and sodium could make it difficult to meet the weekly dietary specifications for school meals.

The CSDE recommends that schools do not use grain-based desserts to count toward the grains component.

Note that on the USDA Ounce Equivalents Chart, some allowable "breakfast" items credit as desserts at lunch, e.g., cereal bars and granola bars, and sweet rolls. These products are designated with a footnote.

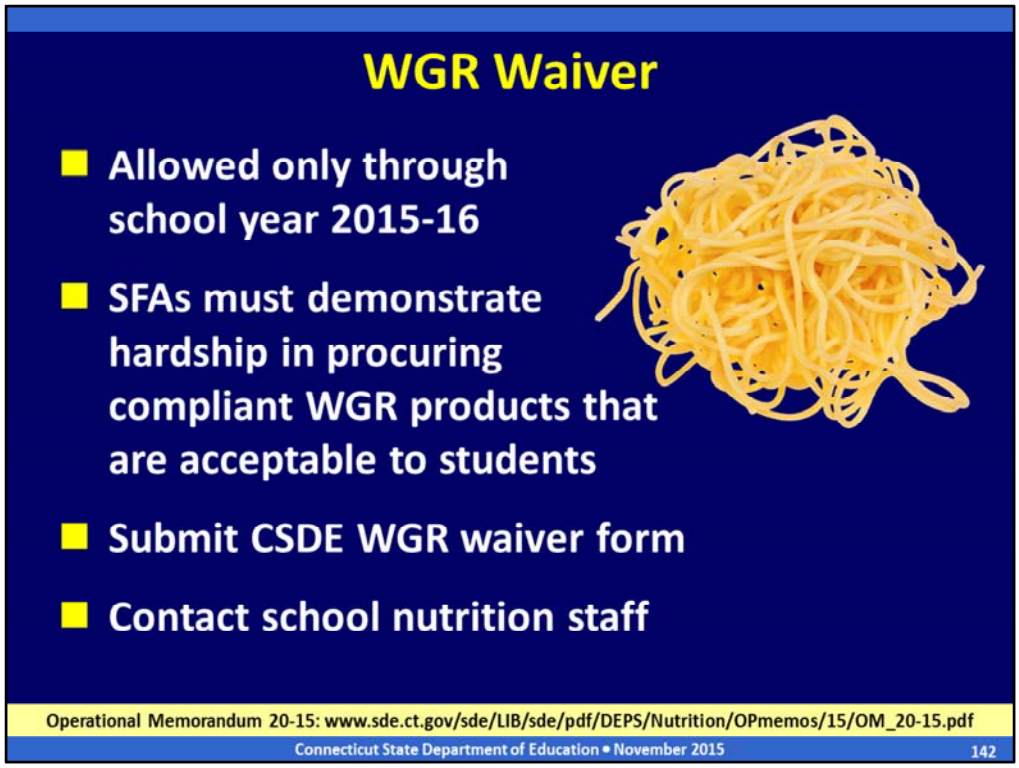



All WGR batter or breading on products such as chicken nuggets or fish sticks credits toward the grains requirement. Grains must be offered in the amount of ¼ ounce equivalent or greater (the minimum creditable amount) to credit toward the daily and weekly grain offerings.

Battered and breaded products credit only with appropriate documentation. When schools use commercially processed foods to count toward the grains component, the menu planner must ensure that these products provide the appropriate actual amount of grains being credited for each reimbursable meal. The menu planner must obtain documentation from the manufacturer stating the amount of grains per serving based on either:

- an original CN label from the product carton if grains are part of a meat/meat alternate product; or
- a PFS signed by an official of the manufacturer.

If a battered or breaded product is not WGR, it cannot credit toward the grains component. It could be served as the meat/meat alternates component with appropriate documentation (CN label or PFS). However, these products are not practical for school meals because they cannot count toward the minimum daily or weekly grains but must still count toward the dietary specifications for calories, fat and sodium.

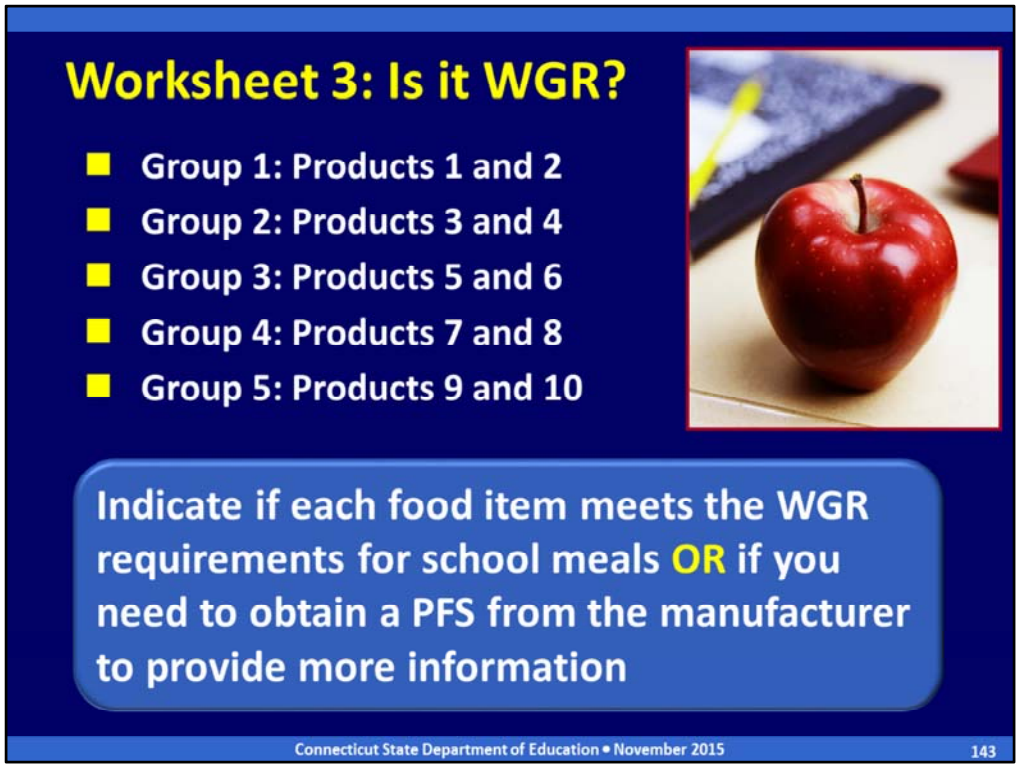



For school years 2014-15 and 2015-16 only, the USDA allows an exemption from the regulatory WGR requirement for SFAs that demonstrate a hardship in procuring compliant WGR products that are acceptable to students. The temporary exemptions are allowed for any type of grain product such as pasta, bread and rice, and for one or more different products. SFAs granted an exemption must:

- work with the CSDE to identify acceptable products; and
- comply with the school year 2013-14 requirement to offer at least half of grains as WGR products.

Interested districts should contact their regional CSDE school nutrition consultant.

**INSTRUCTOR NOTES:** CSDE Operational Memorandum 20-15 describes this exemption and provides more information. It is available on the CSDE's Operational Memo Web page, at the link indicated on this slide.

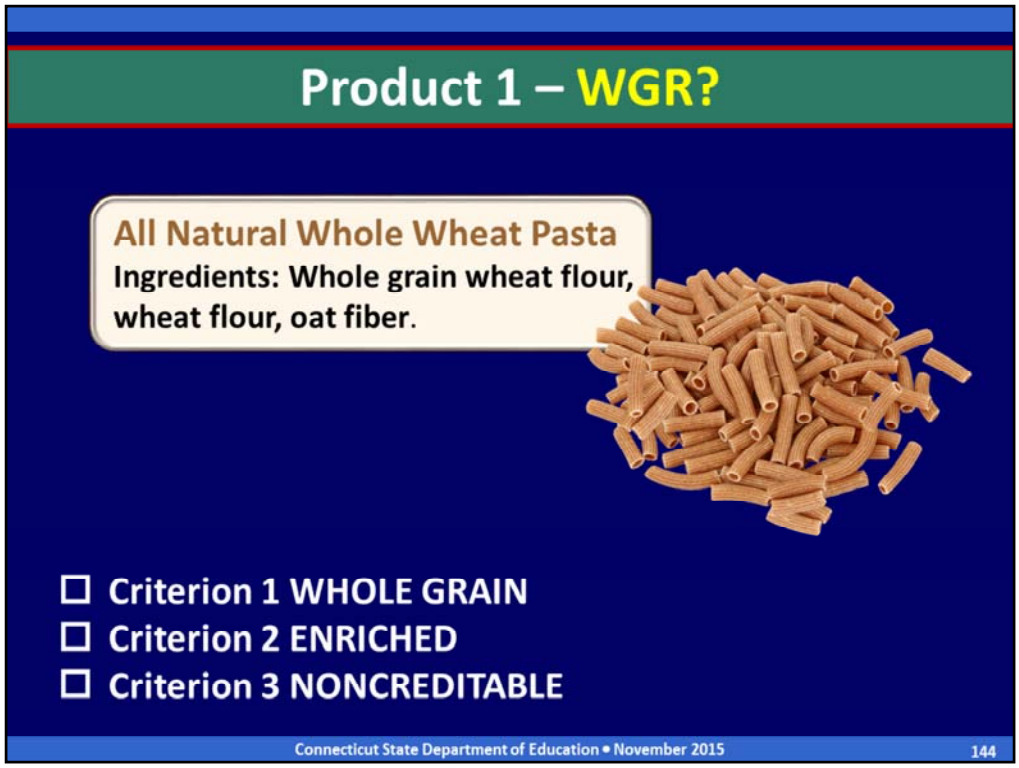



Now let's evaluate some products to see whether they meet the WGR requirements for school meals.

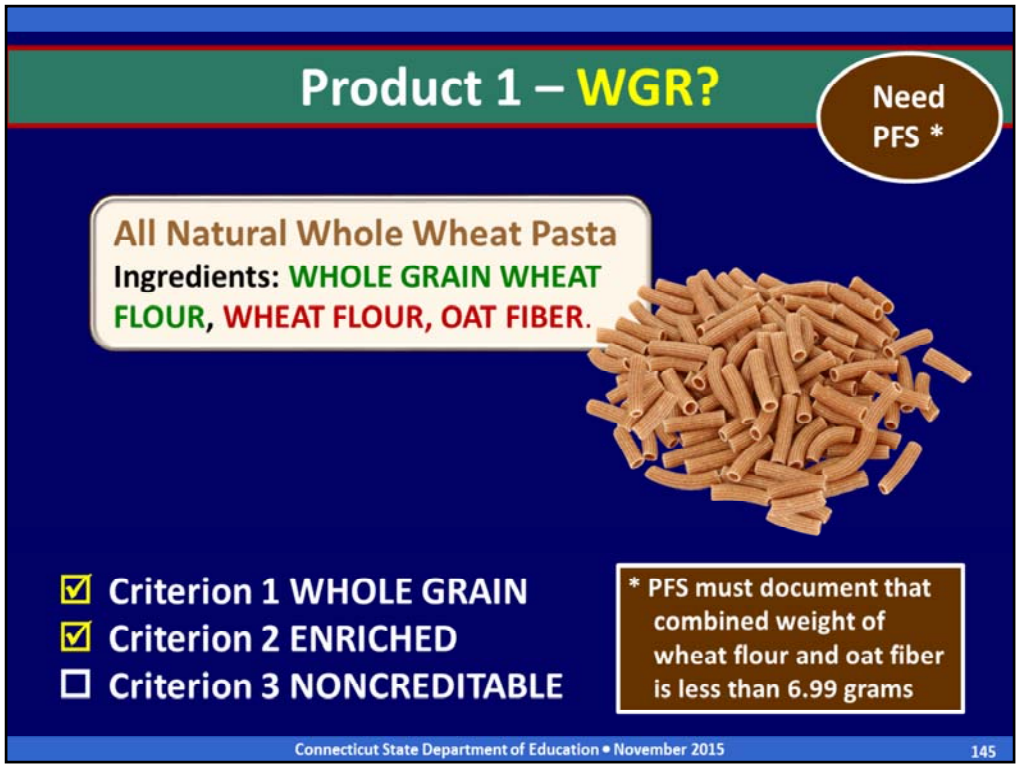
Take out worksheet 3 – Is it whole grain-rich? In your small group, look at each food item and determine if it meets the whole grain-rich requirements or if you need to obtain a PFS from the manufacturer to provide more information.

**INSTRUCTOR NOTES:**

- Divide participants into five groups (count off by fives). Assign two foods to each group.
- Give groups 4 minutes to review the ingredients list for their food, and determine if the product is WGR.
- When the groups are done, have each group report their answers. The tallest person is the reporter.
- **Modification:** If time is short, have people stay in table groups or do the activity together as one large group.



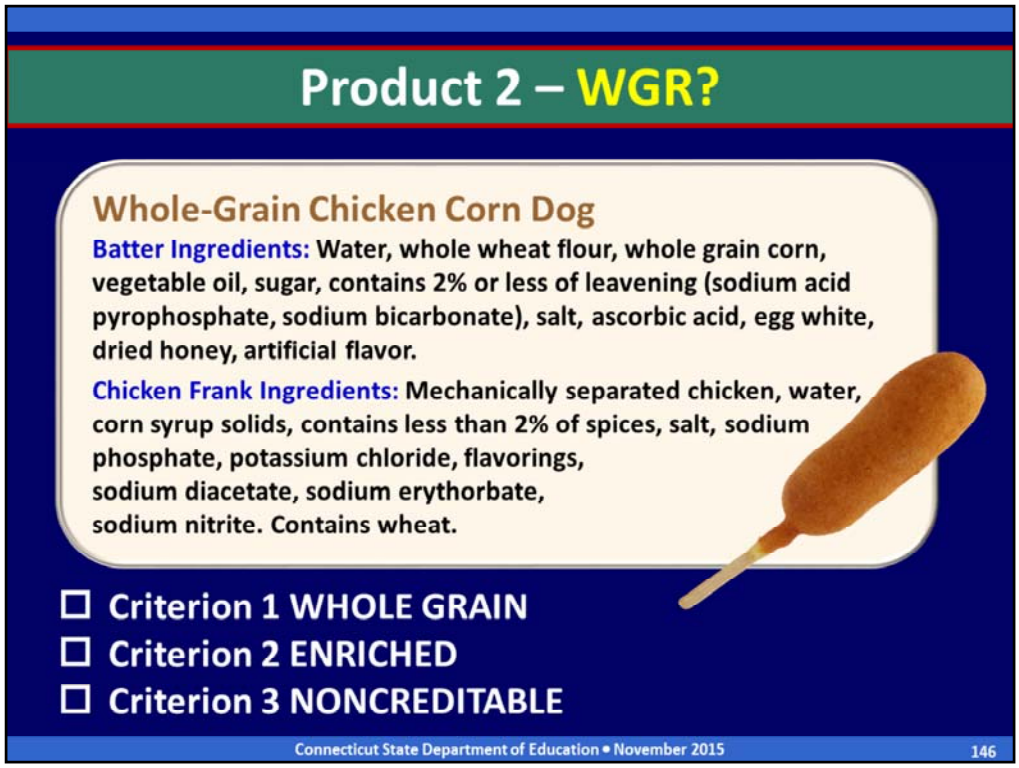

Does the all natural whole-wheat pasta meet the WGR definition?



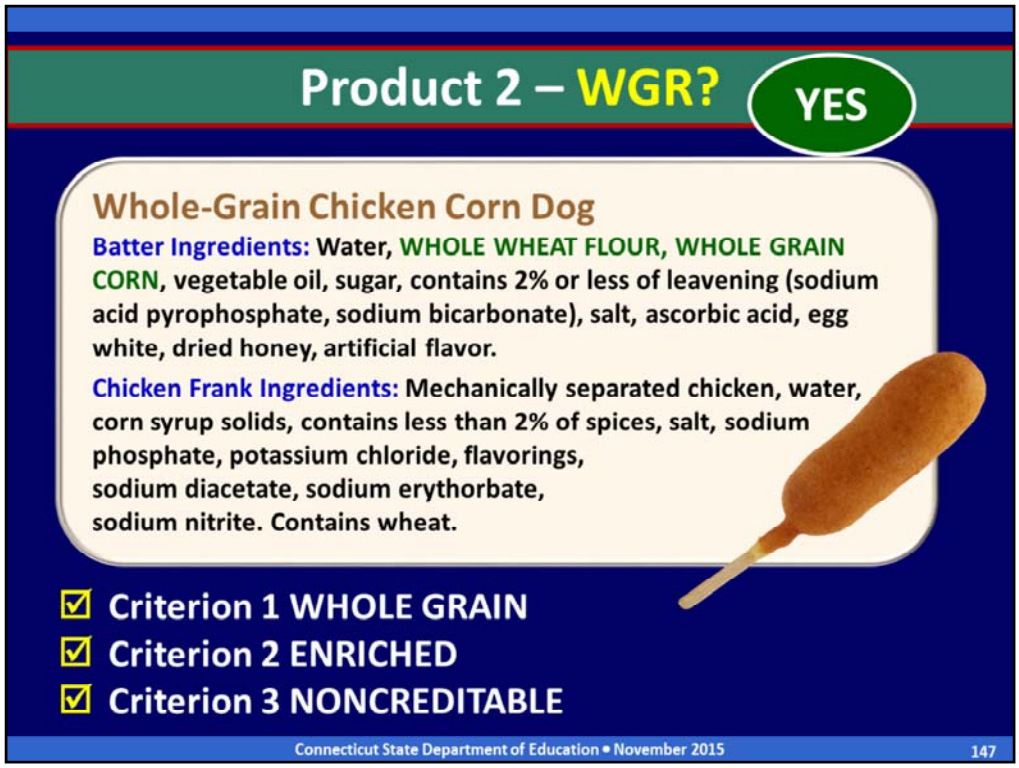

Whole-wheat flour is the first and only grain ingredient (criteria 1 and 2). This product contains **two noncreditable grains** (wheat flour and oat fiber).

To determine if this product meets criterion 3, the menu planner must obtain a PFS from the manufacturer. If the combined weight of the wheat flour and oat fiber is less than 6.99 grams, this product complies with the noncreditable grains limit (criterion 3) and meets the WGR definition.

Products containing noncreditable grains in amounts more than 2 percent of the product formula (6.99 grams for groups H and I) cannot contribute toward the reimbursable meal.




Does the whole-grain chicken corn dog meet the WGR definition?

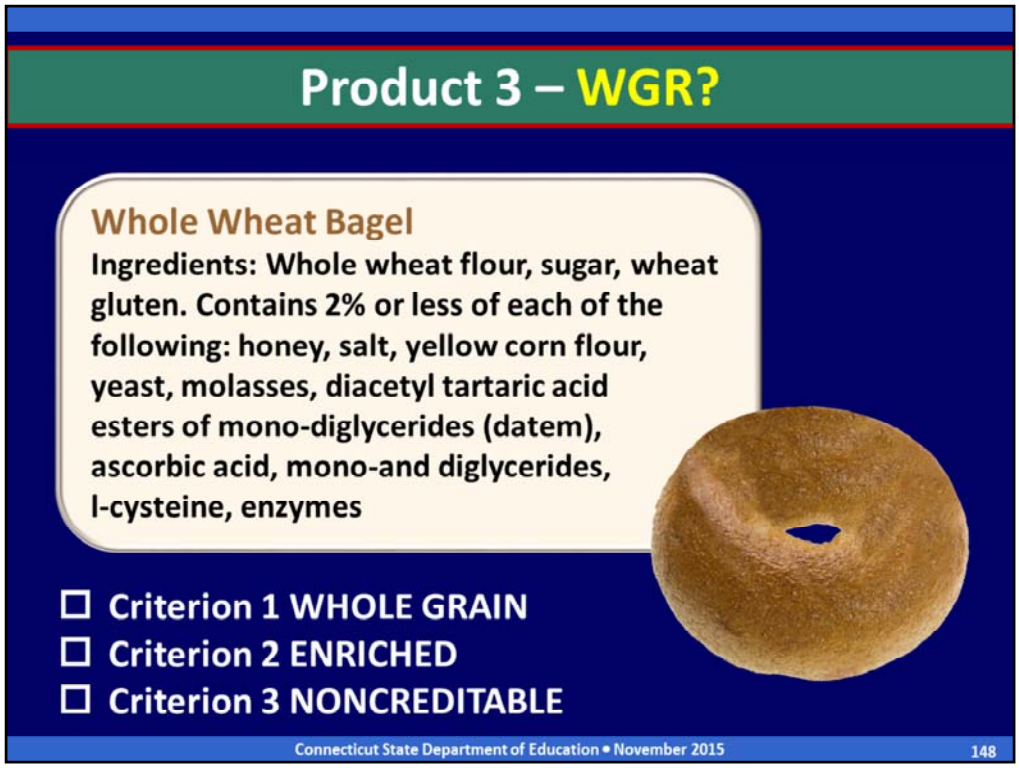



Yes. This product is WGR.

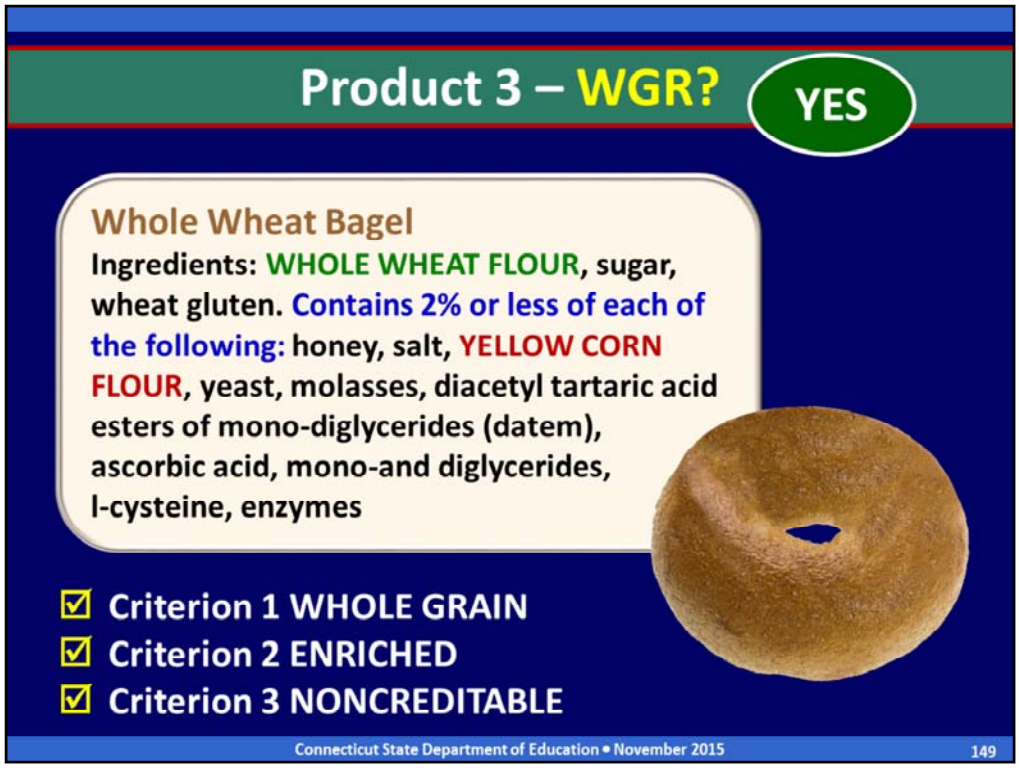
Corn dogs are combination foods because they contribute to both the grains and meat/meat alternates components. To review this product for compliance with WGR requirement, we only need to look at the grain ingredients in the **batter** (grains component).

Whole-wheat flour is the first grain ingredient in the batter and all other grains (whole grain corn) are whole (criteria 1 and 2). There are no noncreditable grains (criterion 3).

Remember that if the first ingredient of a grain product is water, a whole grain may be listed as the second ingredient and still meet the criteria.



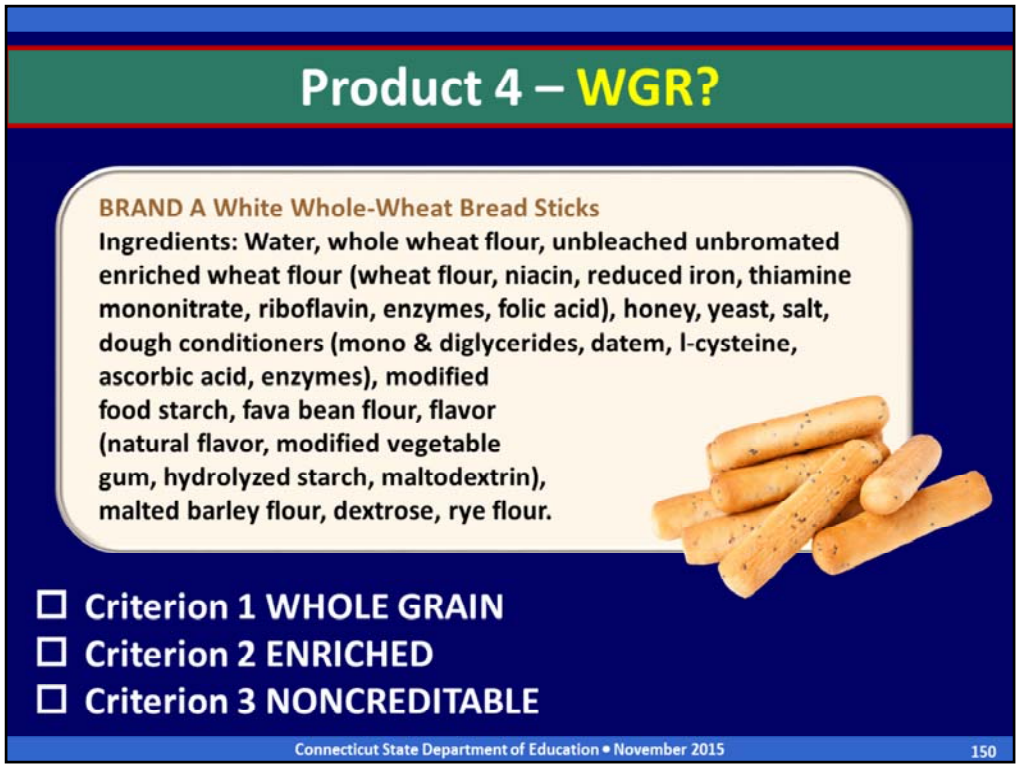

Does the whole-wheat bagel meet the WGR definition?



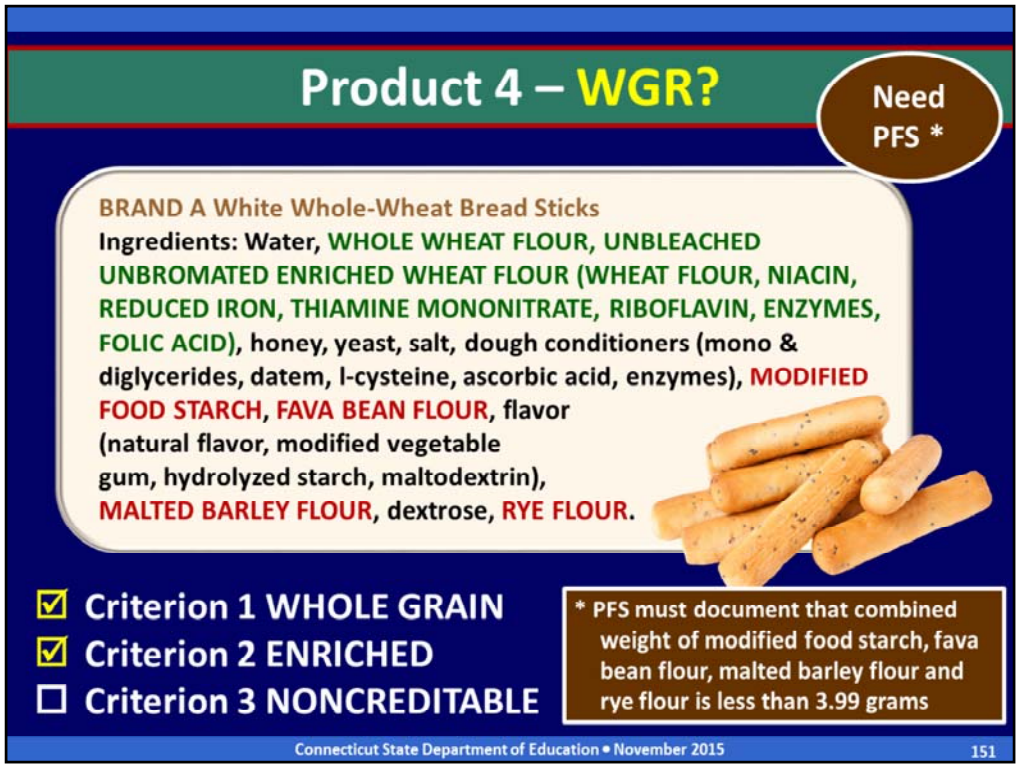

Yes. This product is WGR. Whole-wheat flour is the first and only grain ingredient (criteria 1 and 2). This product contains only **one noncreditable grain** (yellow corn flour) listed after the statement "contains 2% or less of," and therefore complies with the noncreditable grains limit (criterion 3).

**INSTRUCTOR NOTES:** The definition below is only for your background information. You do not need to provide this information unless someone asks a question about it.

**Wheat gluten** is the protein component of the wheat grain, that helps baked goods hold their shape. It is neither a creditable or noncreditable grain. When the glutens in wheat are stretched out through the kneading or mixing process, they form little pockets which can then be inflated by the gases released by the leavening agent. When these air pockets inflate, the dough expands or rise. When baked, gluten hardens, which allows the bread to hold its shape and gives it its firm texture.




Does Brand A of the white whole-wheat bread sticks meet the WGR definition?



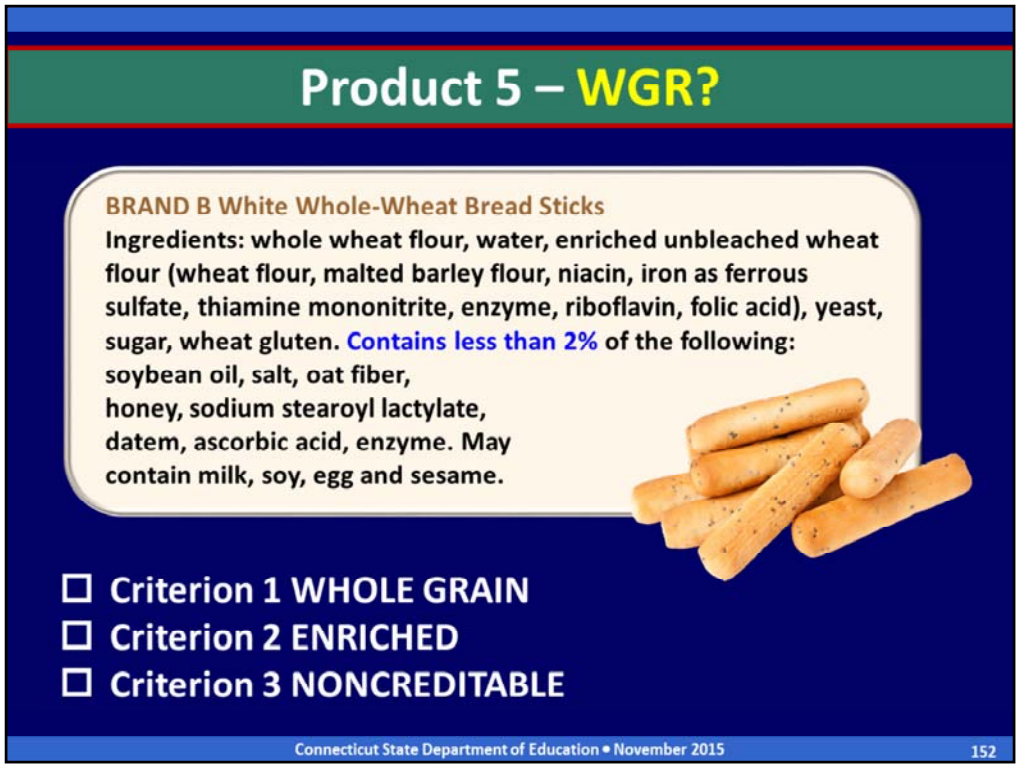

This product may or may not meet the WGR definition.

Whole wheat flour is the first ingredient after water (criterion 1). The second ingredient is enriched flour (criterion 2).

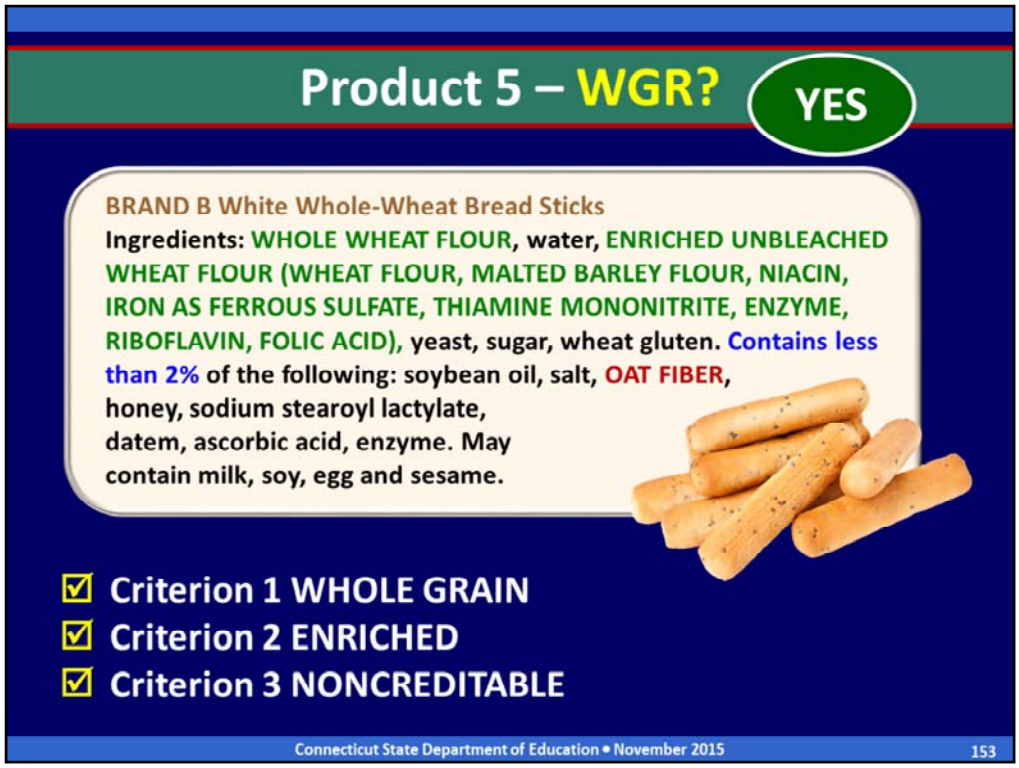
This product contains **four noncreditable grains** (modified food starch, fava bean flour, malted barley flour, rye flour). To determine if this product meets criterion 3, the menu planner must obtain a PFS from the manufacturer.

If the combined weight of the modified food starch, fava bean flour, malted barley flour, rye flour is less than 3.99 grams, this product complies with the noncreditable grains limit (criterion 3) and meets the WGR definition.

Products containing noncreditable grains in amounts more than 2 percent of the product formula (3.99 grams for groups A-G) cannot contribute toward the reimbursable meal.




Does Brand B of the white whole-wheat bread sticks meet the WGR definition?



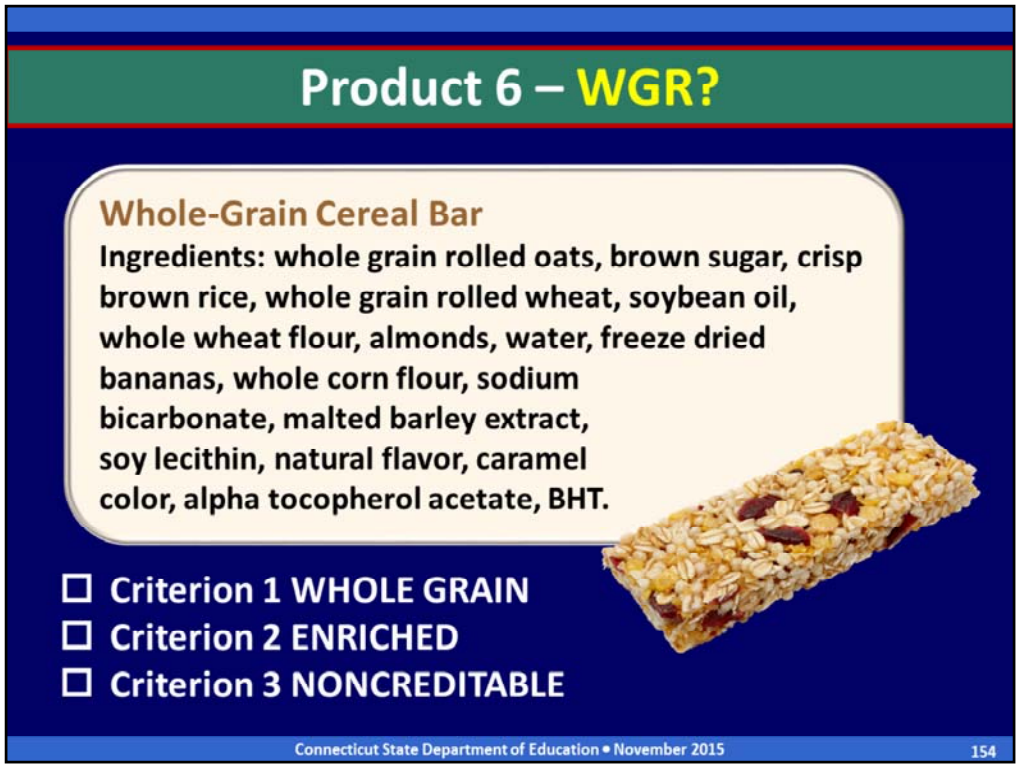

Yes. This product is WGR. Whole-wheat flour is the first grain ingredient (criterion 1). The second ingredient is enriched flour (criterion 2).

This product contains only **one noncreditable grain** (oat fiber) listed after the statement "contains 2% or less of," and therefore complies with the noncreditable grains limit (criterion 3).

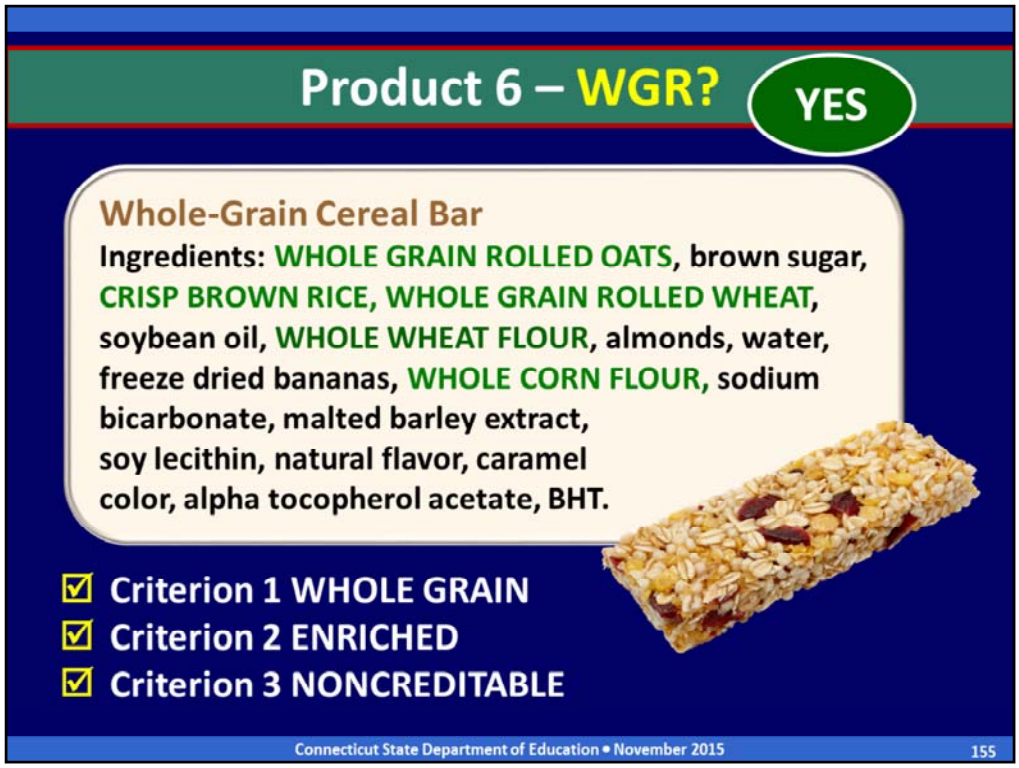
This shows the importance of checking each individual product. You cannot assume that similar products are the same. Even though products 4 and 5 are both white whole-wheat bread sticks, they have different ingredients and one requires a PFS while the other does not.

**INSTRUCTOR NOTES:** The definition below is only for your background information. You do not need to provide this information unless someone asks a question about it.

**Wheat gluten** is the protein component of the wheat grain, that helps baked goods hold their shape. It is neither a creditable or noncreditable grain. When the glutens in wheat are stretched out through the kneading or mixing process, they form little pockets which can then be inflated by the gases released by the leavening agent. When these air pockets inflate, the dough expands or rise. When baked, gluten hardens, which allows the bread to hold its shape and gives it its firm texture.



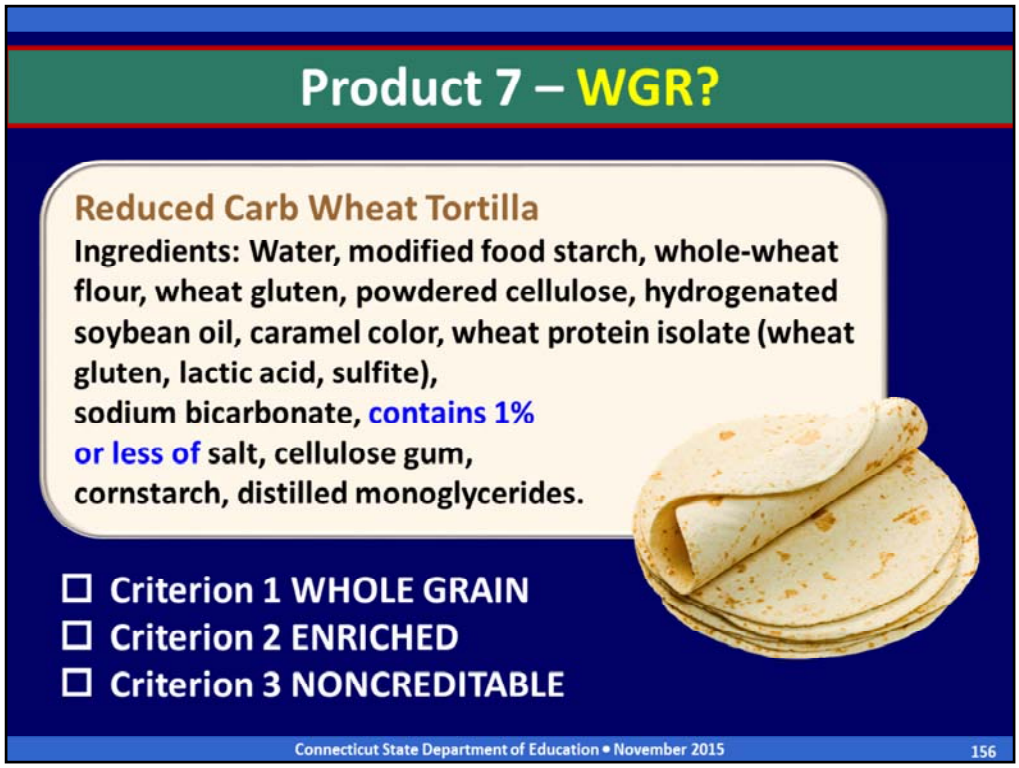

Does the whole-grain cereal bar meet the WGR definition?



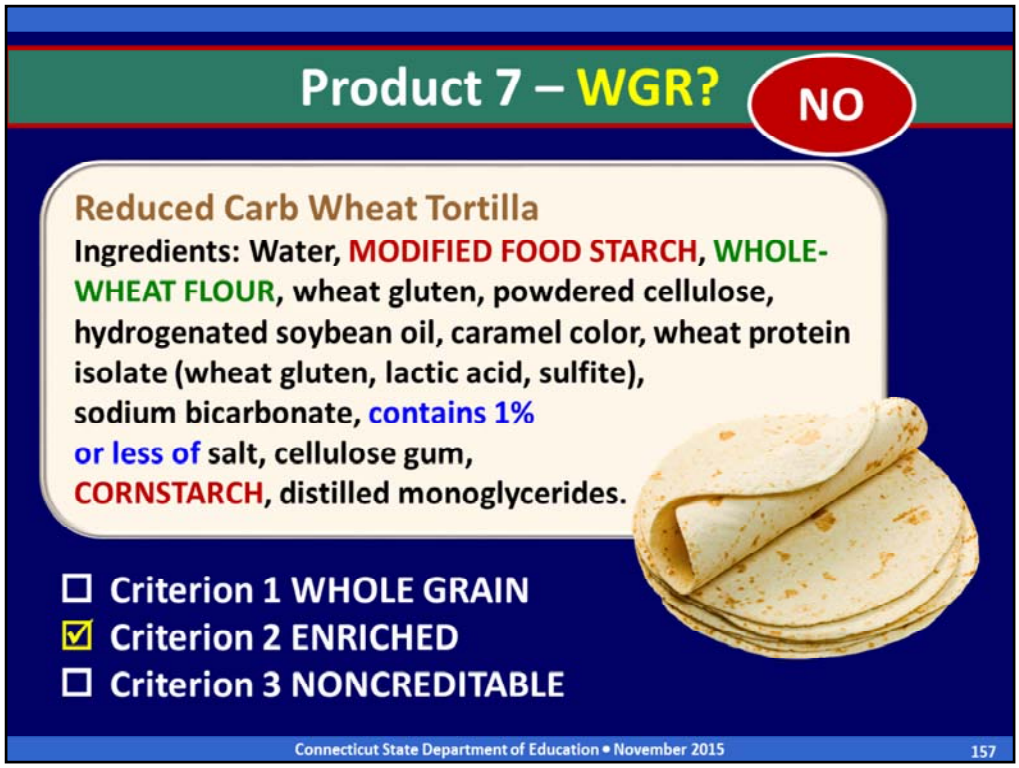

Yes. This product is WGR.

Whole-grain rolled oats is the first grain ingredient and all other grains (crisp brown rice, whole-grain rolled wheat, whole-wheat flour and whole corn flour) listed are also whole (criteria 1 and 2).

There are no noncreditable grains (criterion 3).



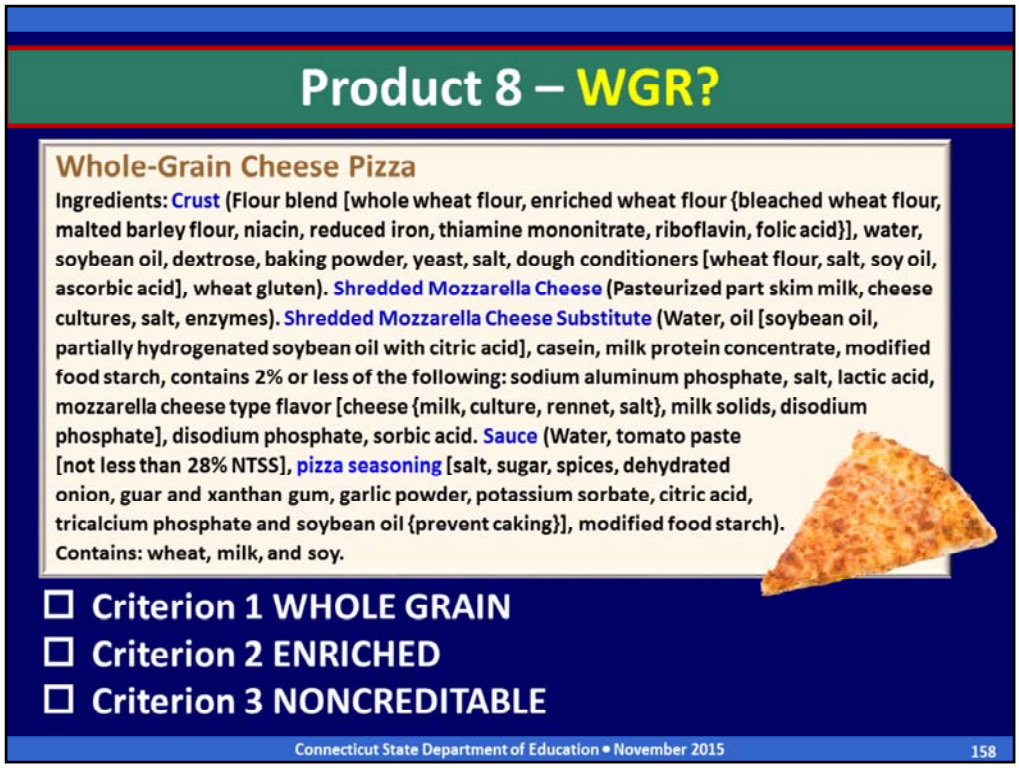

Does the reduced carb wheat tortilla meet the WGR definition?




No. This product is not WGR.

This product does not have a whole grain as the first ingredient (criterion 1). There are no grains other than whole-heat flour so it meets criterion 2.

It contains modified food starch as the first ingredient after water, and also contains cornstarch. Modified food starch and cornstarch are noncreditable grains, and must be less than 2 percent of the product formula (i.e., no more than 3.99 grams) for the product to count as the grains component.




Does the whole-grain cheese pizza meet the WGR definition?

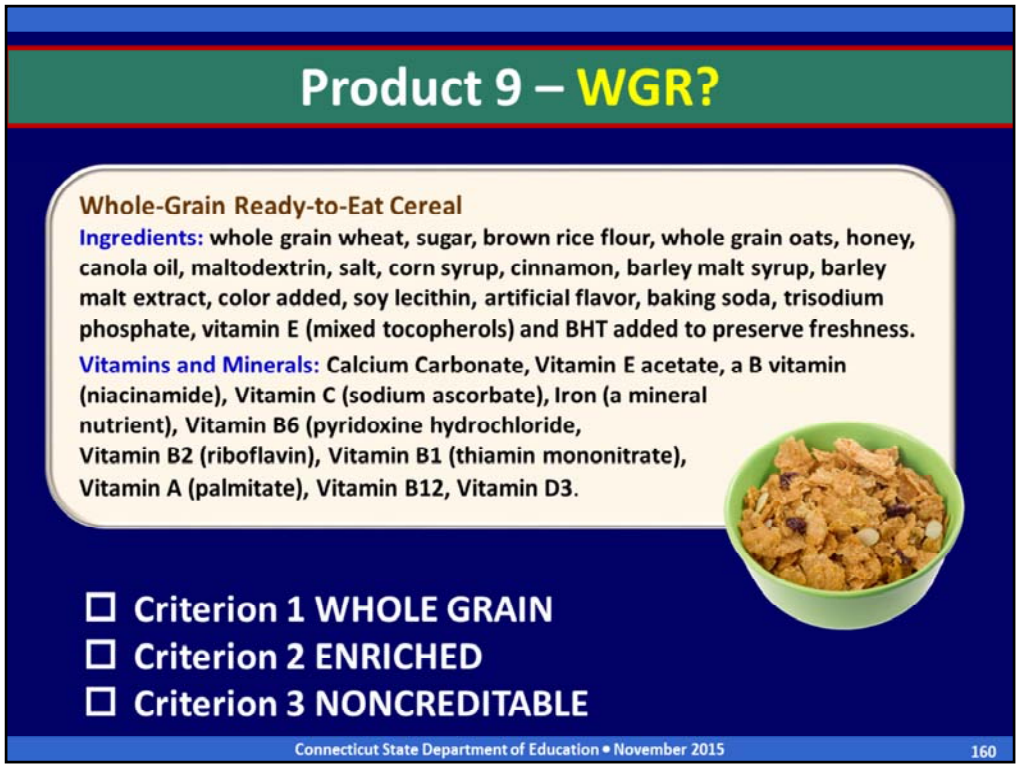

This product is a "combination food" – it contains other food groups besides the grains component (cheese, cheese substitute from the meat/meat alternates component and tomato sauce from the vegetables component). To review this product for compliance with WGR requirement, we only need to look at the grain ingredients.

This product may or may not meet the WGR definition. We need additional information about the flour blend and noncreditable grain. This must be documented by a PFS from the manufacturer that is on company letterhead and is signed by an official company representative.

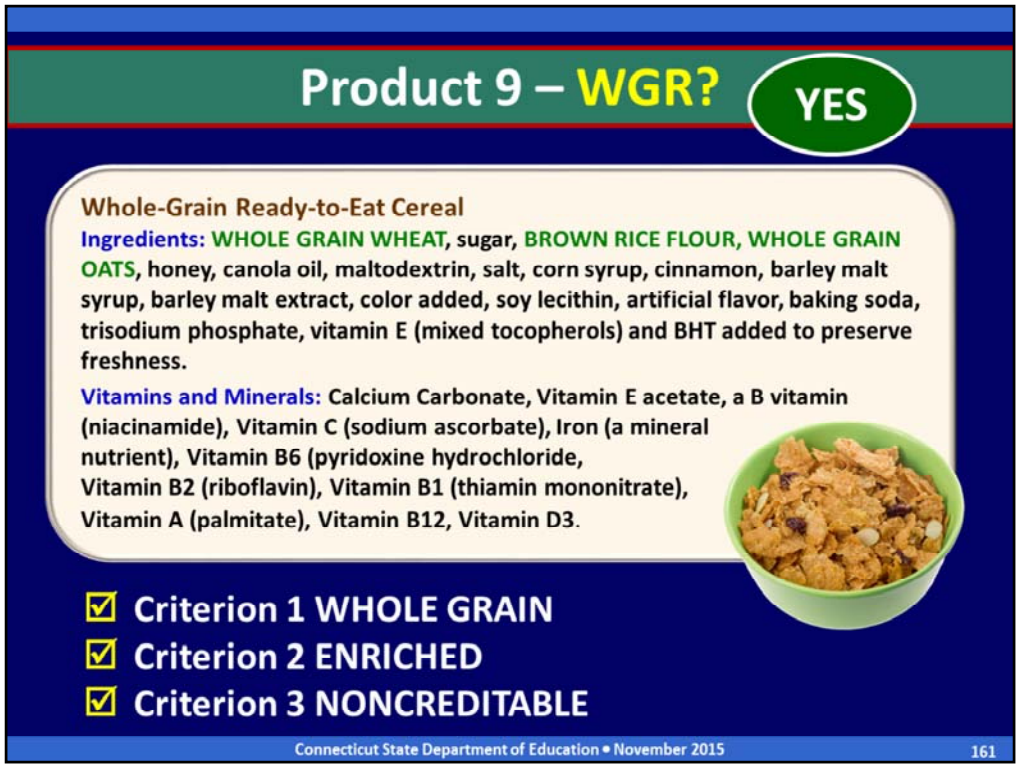
For criterion 1, this product contains a **flour blend** of whole-wheat flour and enriched flour. We need to know the weight of **each individual ingredient** in the flour blend. The manufacturer's PFS must document that the weight of the whole-wheat flour is more than the weight of the soybean oil.

To meet criterion 3, the manufacturer's PFS must document that the weight of the wheat flour is less than 3.99 grams.

The **modified food starch** is listed as an ingredient in the **"sauce"** so it does **not** count toward the noncreditable grains because it is not part of the "crust."




Does the whole-grain cereal meet the WGR definition?




Yes. This product is WGR.

To meet the WGR criteria, ready-to-eat breakfast cereals must list a whole grain first in the ingredient list and the cereal must be fortified. This cereal meets both requirements.

Whole-grain wheat is the first grain ingredient and the other grain ingredients (brown rice flour and whole grain oats) are whole grains (criteria 1 and 2).

There are no noncreditable grains (criterion 3).

We know it is fortified because it contains the five **enrichment** nutrients (iron, thiamin, riboflavin, niacin and folic acid) and seven **additional** nutrients: Calcium Carbonate, Vitamin E acetate Vitamin C (sodium ascorbate), Vitamin B6 (pyridoxine hydrochloride, Vitamin A (palmitate), Vitamin B12, Vitamin D3.


Does the whole-grain blueberry muffin meet the WGR definition?


This product may or may not meet the WGR definition.

Whole wheat flour is the first ingredient (criterion 1) and the product contains enriched flour (criterion 2).

This product contains three noncreditable grains (oat fiber, modified food starch and wheat starch). To determine if this product meets criterion 3, the menu planner must obtain a PFS from the manufacturer.

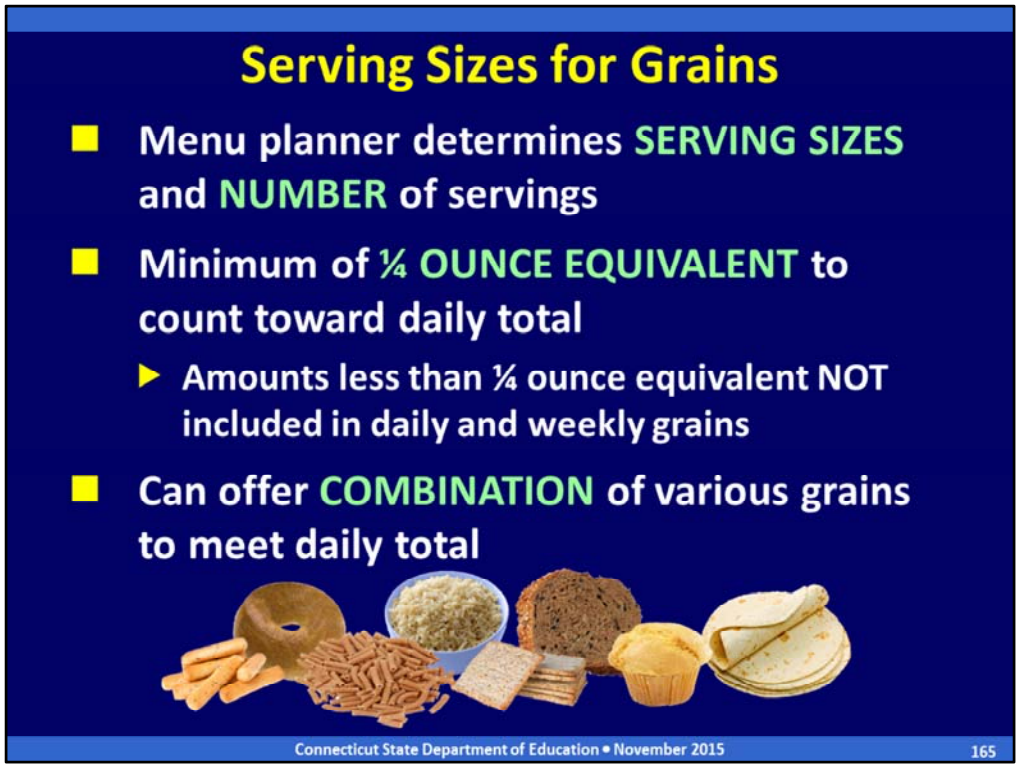
If the combined weight of the oat fiber, modified food starch and wheat starch) is less than 3.99 grams, this product complies with the noncreditable grains limit (criterion 3) and meets the WGR definition.

Products containing noncreditable grains in amounts more than 2 percent of the product formula (3.99 grams for groups A-G) cannot contribute toward the reimbursable meal.


Because the crediting the requirements for grains are complicated, it is important for schools to ensure that all grains products used on school menus comply.

The procurement process is the best time to address the WGR requirements and ensure that grain products comply with the limit for noncreditable grains. Schools can explicitly include the WGR requirements, including the limit for noncreditable grains, in their bid solicitation documents and accompanying bid specifications.

It is also advisable to include a copy of the USDA PFS for grains so that bidders are aware of the information required to document meal pattern compliance.



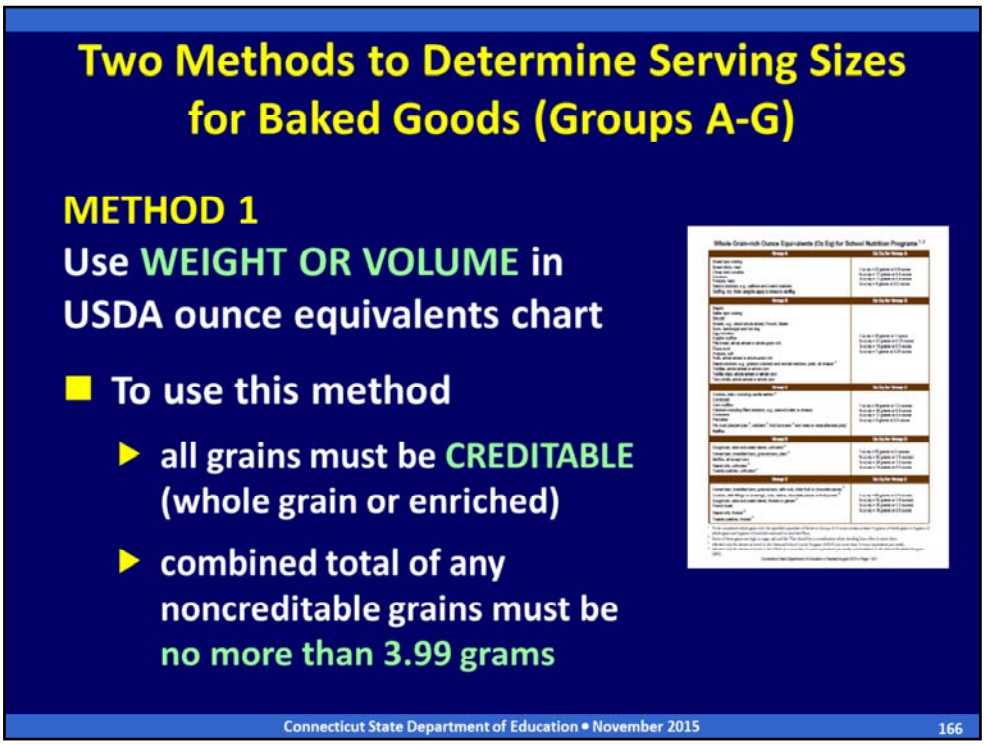

After you have determined that a product meets the WGR criteria, you must ensure that the serving size meets the meal pattern requirements for the grains component.

The menu planner determines the serving sizes and the number of servings of grains needed to meet the meal pattern requirement 1 ounce equivalent daily for grades K-5 and 6-8, and 2 ounce equivalents daily for grades 9-12).

A minimum of ¼ ounce equivalent must be served to count toward the total grains, with the rest of the minimum required portion coming from other grains in the meal. Grains offered in amounts less than ¼ ounce equivalent are **not** included in the calculation of daily and weekly grain offerings.

You can serve smaller portions of grains to meet the total grains requirement. For example, for grades 9-12, you can choose to offer 1 ounce equivalent of pasta (½ cup) and a 1-ounce equivalent whole-grain roll. The menu planner determines the number of grains offered, keeping in mind that the smallest creditable amount is ¼ ounce equivalent.

When we talk about offer versus serve later on, you will see that you may want to offer the minimum daily required serving size for each grade group as one food item.




The menu planner has two choices for determining the appropriate serving size for grain products in groups A-G of the USDA ounce equivalents chart. One method uses the weights or volumes in the USDA ounce equivalents chart and the other uses the total weight of creditable grains.

- **Method 1 Weights or Volumes:** Use either the weights or volumes listed in the USDA ounce equivalents chart to determine the appropriate serving size. This method can be used only if all grains in the product are creditable (i.e., whole or enriched) and the combined total of any noncreditable grains is no more than 3.99 grams.

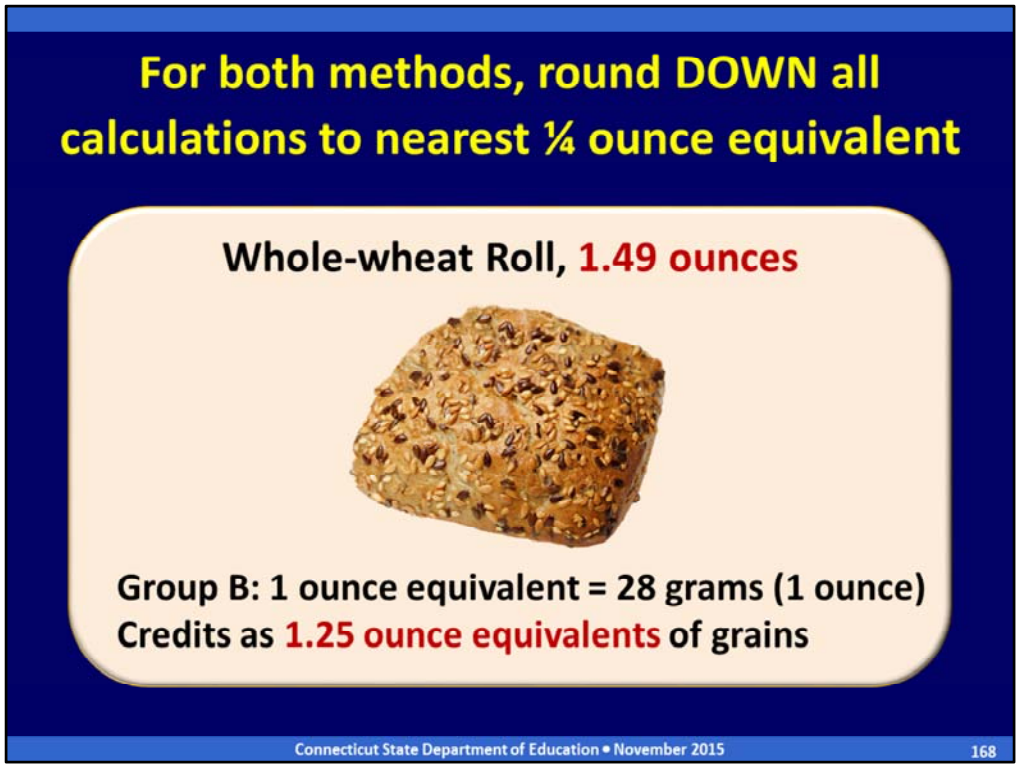

**Method 2 Creditable Grains:** Determine the ounce equivalents of a product by calculating the creditable grains per serving.

For commercial products, this method requires documentation from the manufacturer to certify the grams of creditable grains per portion, i.e., a PFS.

**Ask participants:** Does anyone bake lunch items from scratch, such as muffins or breads? For school-made products, this method requires a standardized recipe.

The combined total of any noncreditable grains must be less than 3.99 grams. Menu planners must use method 2 if:

- the manufacturer claims that a product can provide the minimum creditable grains per portion using a serving size less than the weights given in the USDA ounce equivalents chart*;*
- a product is made from scratch on site and the menu planner calculates the serving size based on grams of creditable grains instead of using ounce equivalents; or
- a product does not fit into one of the groups of the USDA ounce equivalents chart.




For both methods, menu planners must round down all amounts to the nearest ¼ ounce equivalent when counting grains toward the daily and weekly requirements.

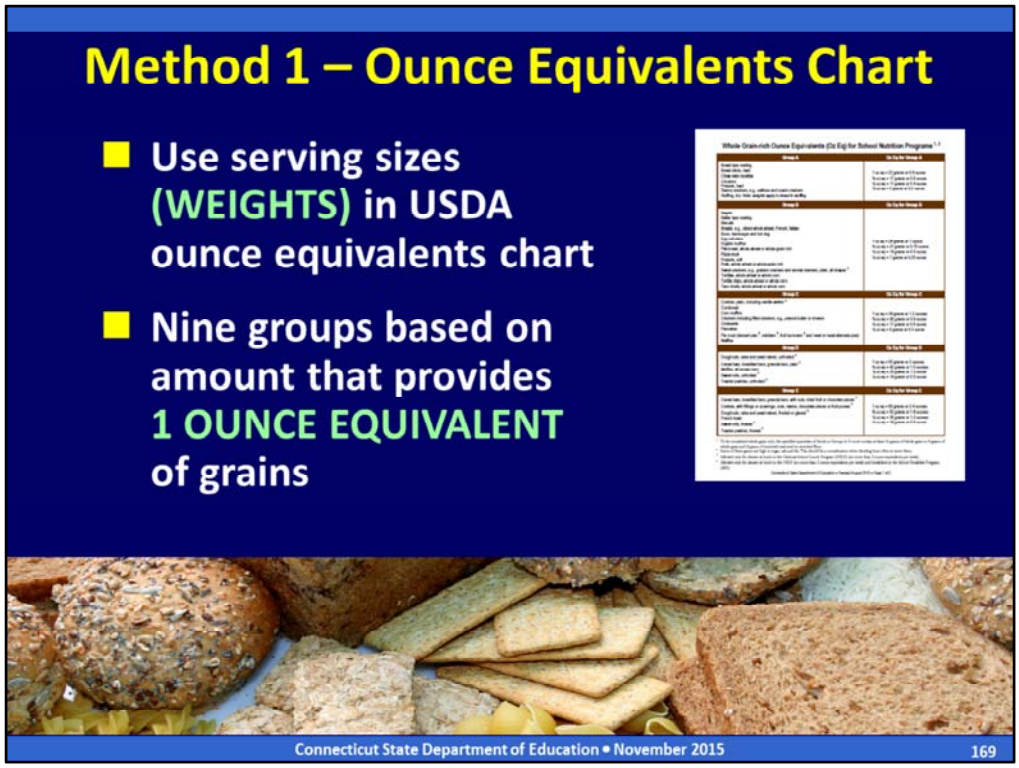
Here is an example. The menu planner want to  use a 1.49-ounce whole-wheat roll for the grains component.

**Ask participants:** How many ounce equivalents of grains can the menu planner meet with this roll?

Rolls are in group B, with all other bread items. For group B, 1 ounce of product provides 1 ounce equivalent of grains.

The menu planner can credit the roll as 1.25 ounce equivalents of grains (1.49 ounces rounded down to the nearest quarter).

**INSTRUCTOR NOTES:** Click to show the answer.




For method 1, schools must use the USDA ounce equivalents chart, *Whole Grain-rich Equivalents Requirements for School Nutrition Programs.* Take a look at your ounce equivalents chart.

The USDA ounce equivalents chart provides minimum serving sizes (ounce equivalents) for a wide variety of grain products. It divides products into **nine groups (A-I)** based on their **average grain content**.

The weight needed for each group to provide 1 ounce equivalent of grains varies because different types of foods contain different concentrations of whole and enriched grains. Grains with fillings, frosting, toppings, nuts, chocolate chips, dried fruit and other similar ingredients require a larger serving to meet the minimum grain content.

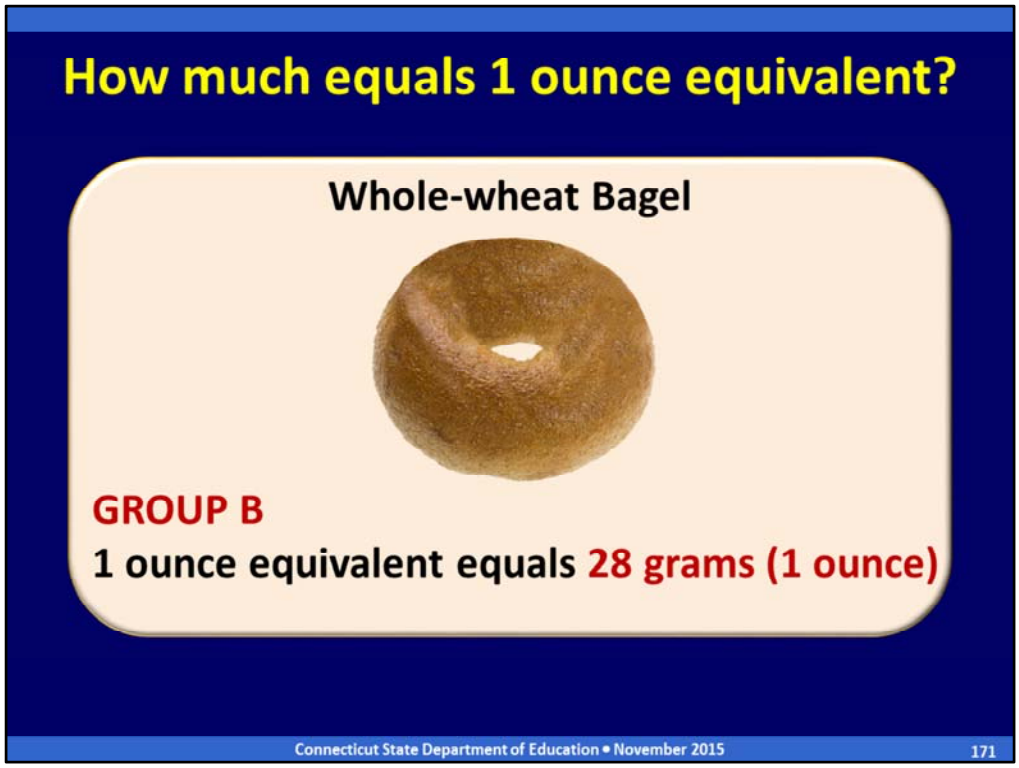
- For groups A-G, 1 ounce equivalent of grains must provide **16 grams** of creditable grains. This can be either at least 16 grams of whole grains or at least 8 grams of whole-grains and 8 grams of enriched grains.

- For groups H-I, 1 ounce equivalent of grains must provide **28 grams** of creditable grains or meet the specified weights and volumes.


This slide shows some examples of the amounts of different grain products that are required to meet 1 ounce equivalent.

For example, looking at the ounce equivalents chart handout, you will see that toast is in Group B where 1 ounce of bread equals 1 ounce equivalent, while a blueberry muffin is in Group D where 2 ounces of weight is needed to equal 1 ounce equivalent.

**Ask participants:** Why do you think a corn muffin needs only 1.2 ounces to provide 1 ounce equivalent but other muffins such as blueberry muffins need 2 ounces to provide 1 ounce equivalent? The servings sizes in the ounce equivalents chart are based on the amount of the product that provides a specific amount of creditable grains (**16 grams** for groups A-G and **28 grams** for groups H-I). Additional ingredients such as fruits dilute the grains so you need a larger serving size to provide the minimum amount of grains.

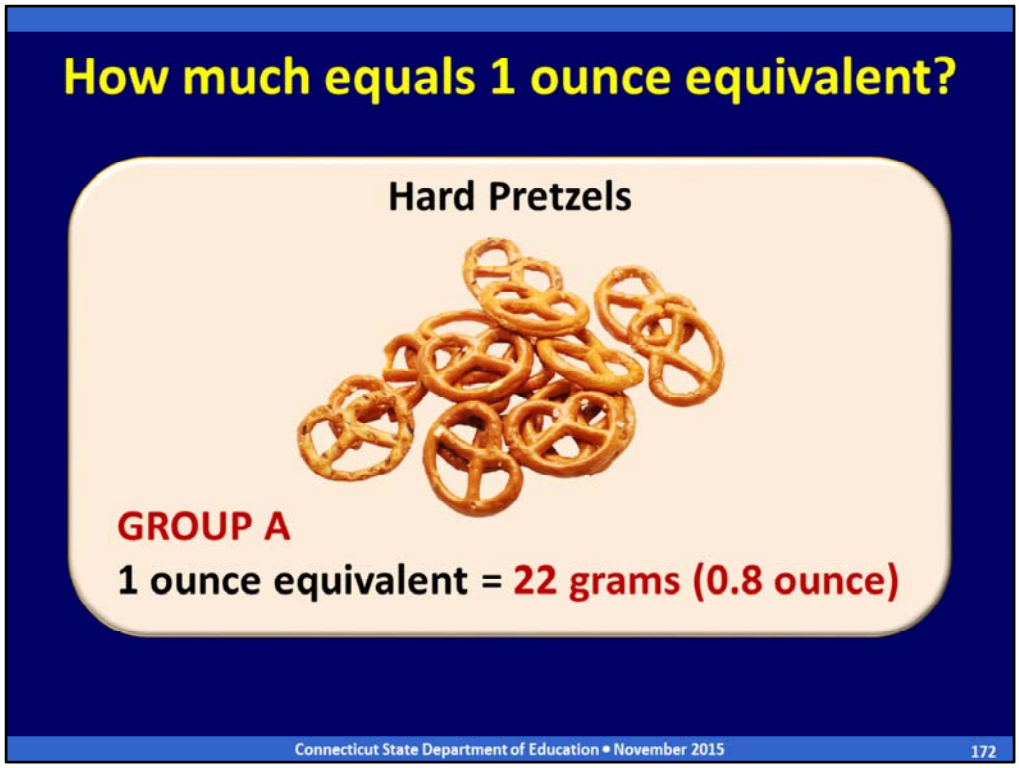



Let's look at some more examples. Refer to your handout, ounce equivalents chart.

**Ask participants:** What is serving size of whole-wheat bagel equals 1 ounce equivalent of grains?

Bagels are in group B: 28 grams (1 ounce) provide 1 ounce equivalent of grains.

**INSTRUCTOR NOTES:** Click to show the answer.




**Ask participants:** What is serving size of hard pretzels equals 1 ounce equivalent of grains?

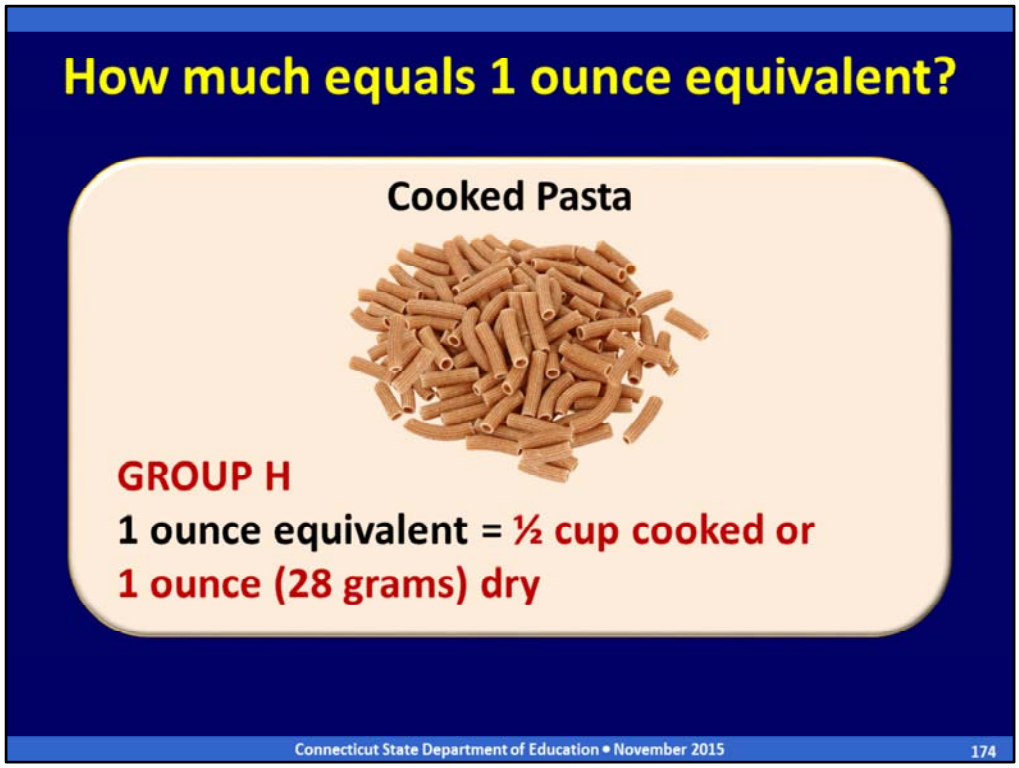
Hard pretzels are in group A: 22 grams (0.8 ounce) provide 1 ounce equivalent of grains.

**INSTRUCTOR NOTES:** Click to show the answer.


**Ask participants:** What serving size of plain granola bars equals 1 ounce equivalent of grains?

Plain granola bars are in group D: 55 grams (2 ounces) provides 1 ounce equivalent of grains.

**INSTRUCTOR NOTES:** Click to show the answer.

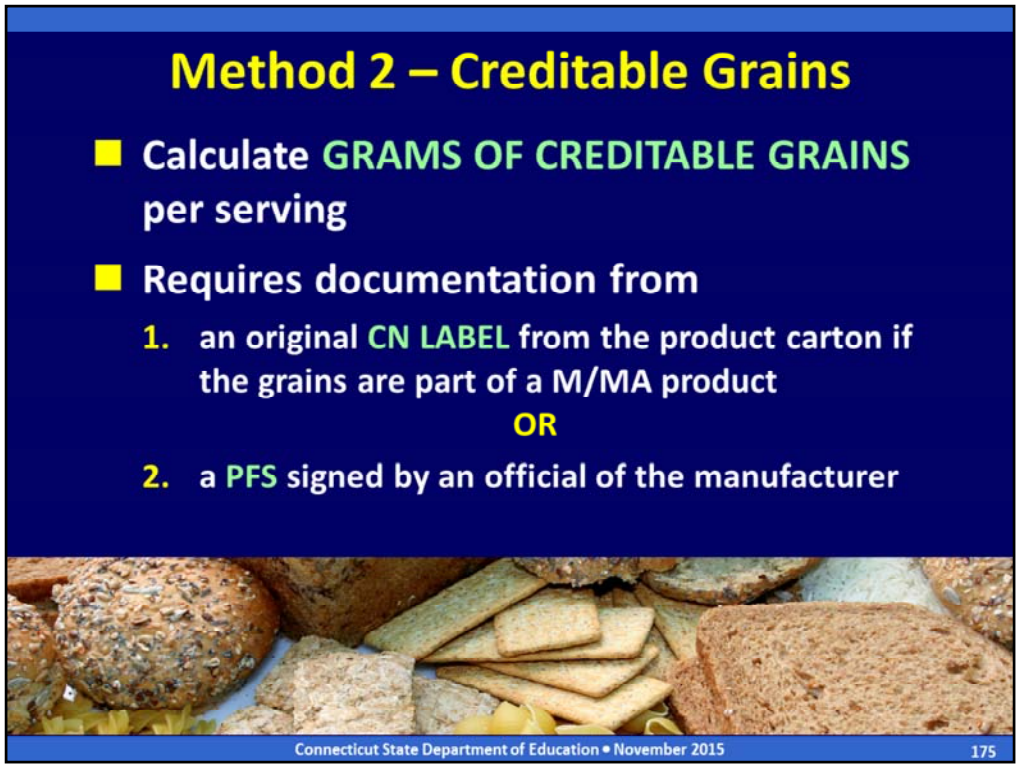



**Ask participants:** What serving size of cooked pasta equals 1 ounce equivalent of grains?

Grain products in groups H and I of the USDA ounce equivalents chart credit differently than grain products in groups A-G. For groups H and I, schools must offer either the volume or weight listed to credit as 1 ounce equivalent. Groups H and I are not typically credited using the grams of creditable grains, but menu planners could choose to use this method. However, volume or weight is preferred.

Cereal grains in group H require 28 grams of creditable grain ingredients to credit as 1 ounce equivalent. These grains are generally served cooked and water is added in preparation, so they credit based on the cooked volume equivalent, e.g., ½ cup of pasta, rice or cereal grains such as oatmeal and quinoa.

**INSTRUCTOR NOTES:** Click to show the answer.

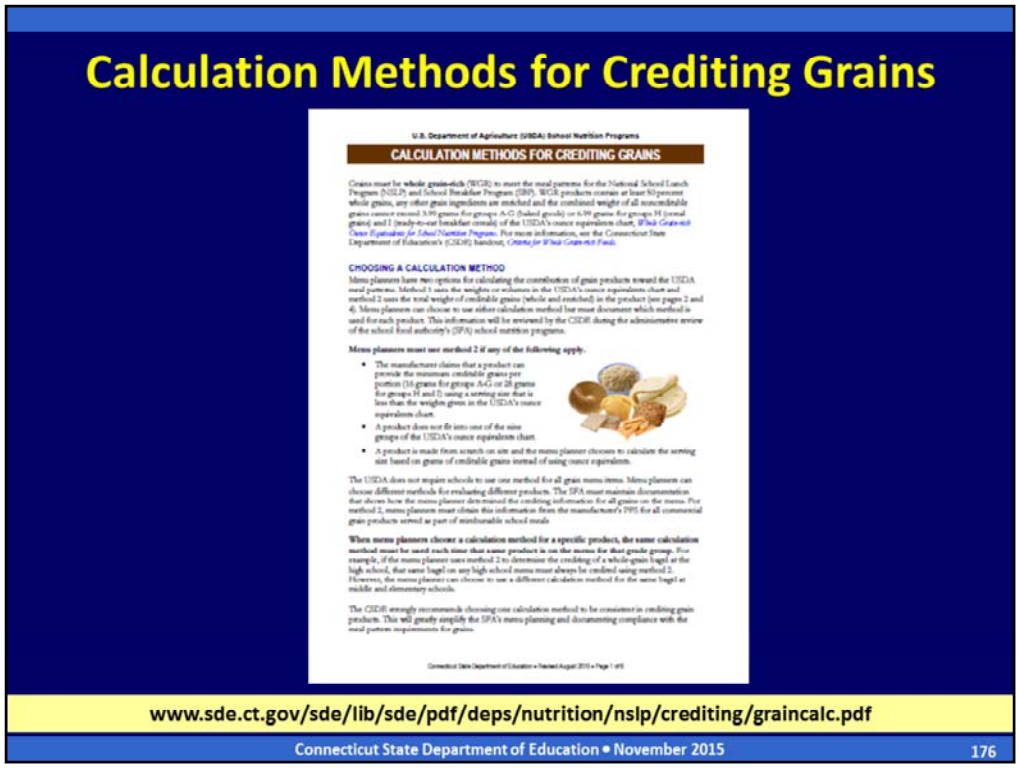



For method 2, creditable grains, the school food authority must determine the ounce equivalents of a product by calculating the creditable grains per serving. This method requires documentation from the manufacturer to certify the **grams of creditable grains** per portion. Creditable grains are whole or enriched.

This documentation must be either:
- an original CN label from the product carton if the grains are part of a meat/meat alternate product; or
- a PFS signed by an official of the manufacturer.

There are several situations when you must use method 2. Menu planners must use method 2 if:

- the manufacturer claims that a product can provide the minimum creditable grains per portion using a serving size less than the weights given in the USDA ounce equivalents chart*;*
- a product is made from scratch on site and the menu planner calculates the serving size based on grams of creditable grains instead of using ounce equivalents; or
- a product does not fit into one of the groups of the USDA ounce equivalents chart.




We won't be doing any crediting calculations with these methods today, but the CSDE's handout, "Calculation Methods for Crediting Grains," describes the two methods schools must use to determine whether grains are creditable and how much to serve to meet the minimum serving size requirements. It is available on the CSDE's Crediting Foods Web page, at the link indicated on this slide.


**Ask participants:** Before we move on to noncreditable foods, what questions do you have about the grains component?

**INSTRUCTOR NOTES:** Ask group 1 to report on noncreditable foods. Use slides to briefly confirm correct information that the group identified about noncreditable foods and share any information that was not included in the group's list. Do not spend any time on information that has already been discussed.

Take out your handout, Noncreditable Foods.

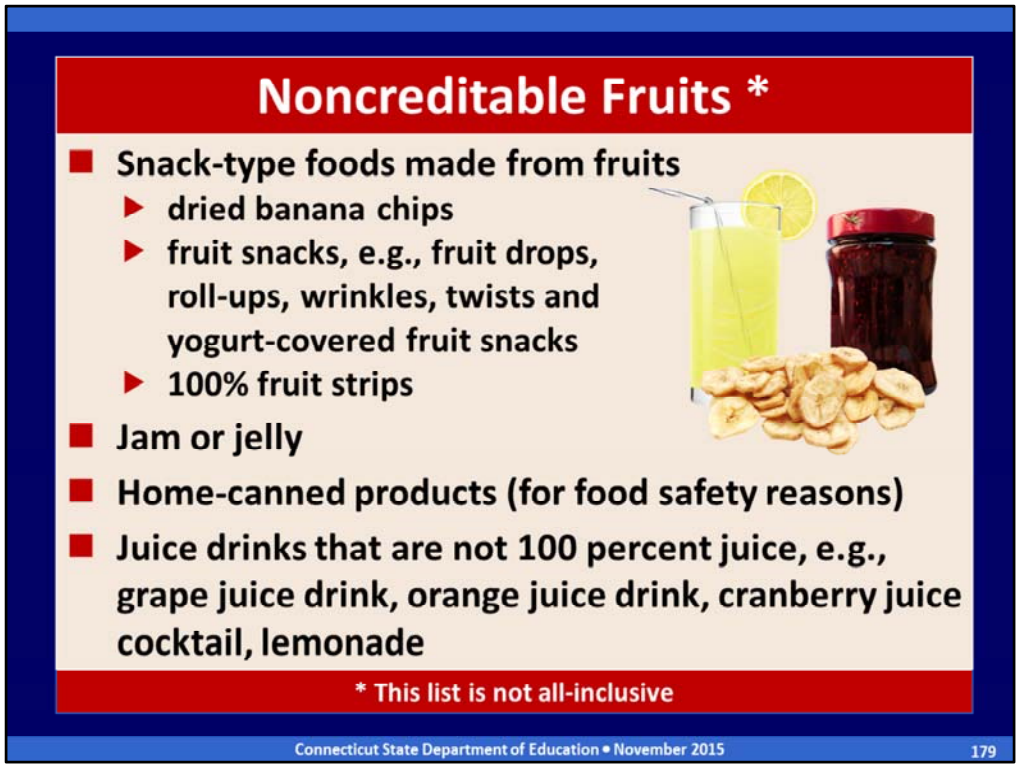
There are many foods that do not credit in school nutrition programs. You can see some of them on this slide, for example: bacon, cream cheese, potato chips, popcorn, pudding, white rice and condiments, such as ketchup, mustard, mayonnaise and salad dressing.


Noncreditable foods are foods and beverages that **cannot credit** toward the USDA meal patterns for school nutrition programs. Schools and institutions may serve noncreditable foods in addition to the meal components to add variety, help improve acceptability in the meal and satisfy appetites. Some examples include maple syrup on pancakes, salad dressing on salad and condiments such as ketchup or mustard on a hotdog, sandwiches and other entrees.

Menu planners should **limit** noncreditable foods in school menus. These foods often contain little nutritional value and are high in fat, sugars and sodium. Menu planners should read labels, be aware of the ingredients in foods and limit the frequency and amount of less nutritious choices.

Noncreditable foods that are offered as part of reimbursable meals must be counted toward the **weekly dietary specifications**. If noncreditable foods are served, they must contain zero trans fat and their inclusion cannot cause the menu to exceed the average weekly limits for calories, saturated fat and sodium.

Let's look at some of the noncreditable foods in each meal component.




These are some of are the fruit products that are not creditable in school meals. This list is not all inclusive.

- Snack-type foods made from fruits do not qualify as fruits and cannot be credited toward meeting the fruits requirement in any of the USDA meal patterns, including dried banana chips; fruit snacks (e.g., roll-ups, wrinkles, twists and yogurt-covered fruit snacks); and 100% fruit strips. This applies to all fruit snacks, even if they meet the USDA Smart Snacks nutrition standards for competitive foods (a la carte sales). These foods cannot be used to count as the fruits component for school meals.

- Jam or jelly;

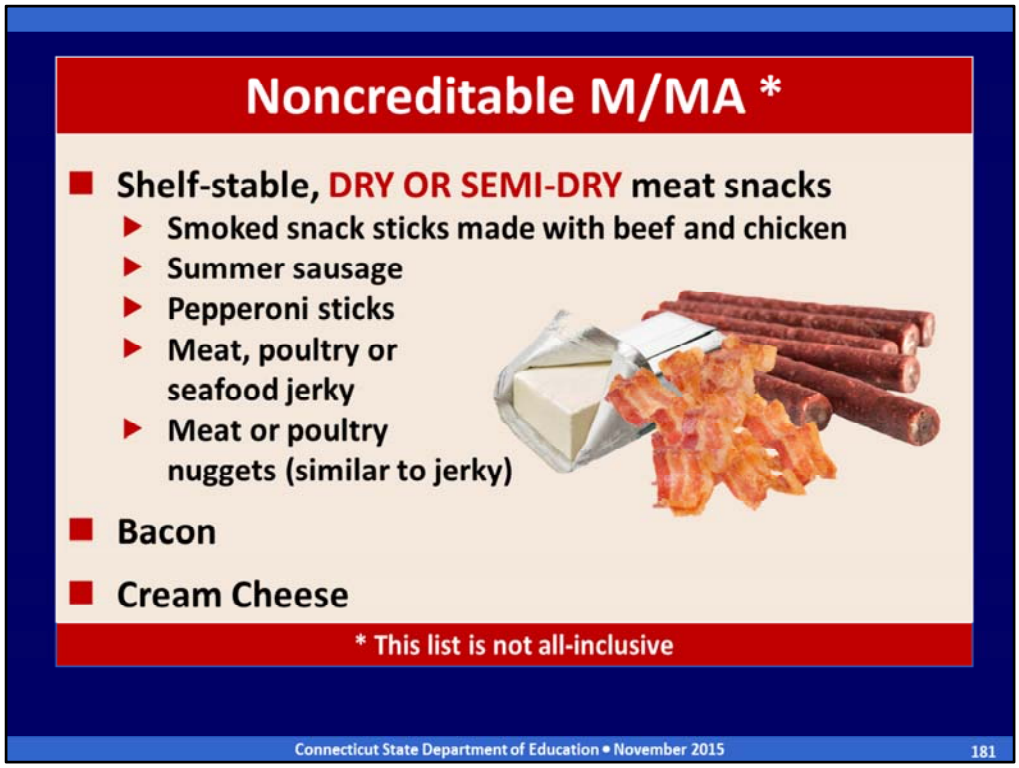
- Home-canned products (for food safety reasons); and

- Juice drinks that are not 100 percent juice, e.g., Grape juice drink, orange juice drink, pineapple-grapefruit drink, cranberry juice cocktail, lemonade.


The following products do not qualify as vegetables and cannot credit toward meeting the vegetables component:

- snack-type foods made from vegetables, such as potato chips or popcorn;
- pickle relish;
- jam or jelly;
- tomato catsup and chili sauce;
- Home-canned products (for food safety reasons); and
- dehydrated vegetables used for seasoning.

This list is not all inclusive.

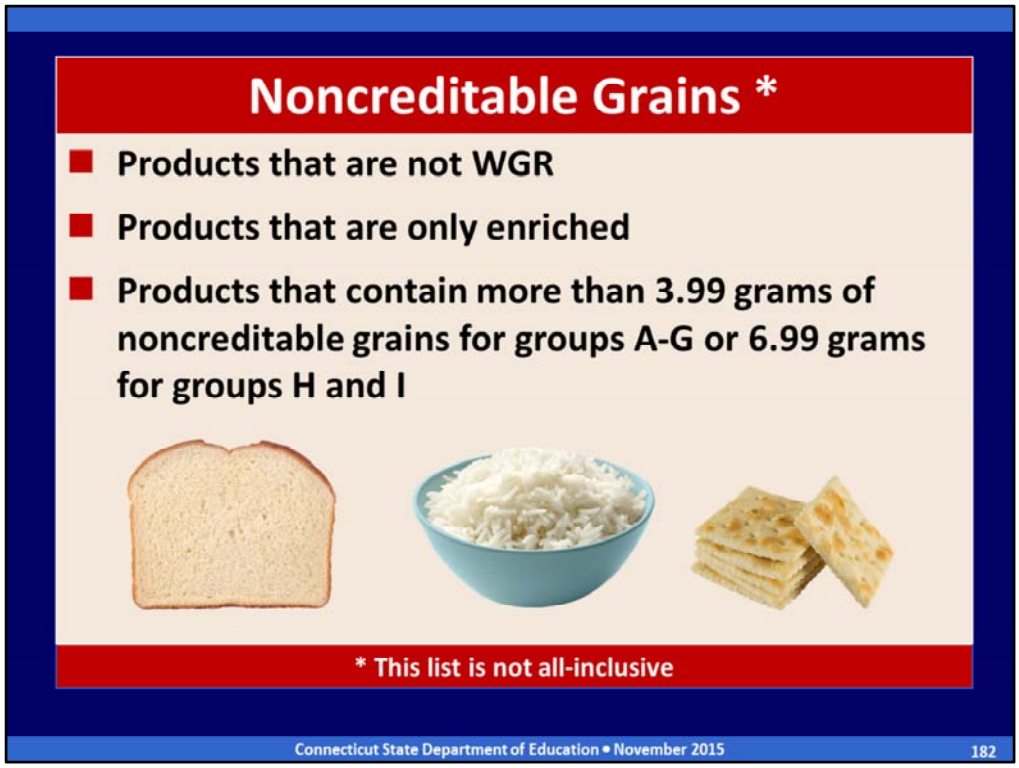



These foods cannot credit toward the M/MA component. This list is not all inclusive.

- **Shelf-stable, dry or semi-dry meat snacks** including smoked snack sticks made with beef and chicken; summer sausage; pepperoni sticks; meat, poultry or seafood jerky such as beef jerky, turkey jerky and salmon jerky; and meat or poultry nuggets (shelf-stable, nonbreaded, dried meat or poultry snack made similar to jerky) such as turkey nuggets. These snack products do not meet the usual and customary function of the meat/meat alternates component as either an entree or side dish of a meal. In addition, dried meat, poultry or seafood snacks do not qualify for the USDA CN Labeling Program because they cannot contribute to the meat/meat alternate component. Therefore, menu planners cannot accept fact sheets or company certified PFSs for these products.
- **Bacon and cream cheese** do not count as a meat/meat alternate or any other component in the USDA meal patterns. They are low in protein and high in fat

**INSTRUCTOR NOTES:** Some meat-stick type products may credit in school nutrition programs with authorized CN labels or a company certified PFS (see CSDE Operational Memorandum 27-11: *Shelf-stable, Dried Snacks Made from Meat, Poultry or Seafood*).

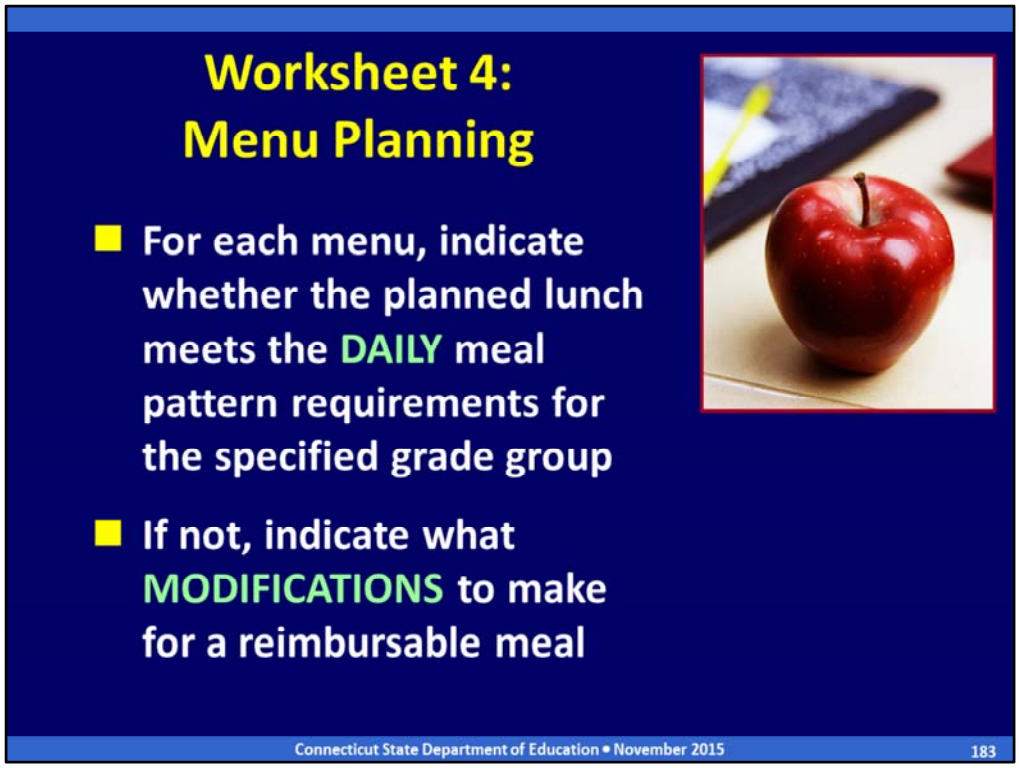
- cooked, cured meat and/or poultry sausages without byproducts, cereals, binders or extenders such as bologna, frankfurters, knockwurst and Vienna sausage as listed in the meat/meat alternates section of the Food Buying Guide;
- extended meat or poultry "pattie-like" products shaped into sticks that are usually breaded and either frozen or refrigerated; and
- dried pepperoni when used as a topping on a CN labeled pizza.




As we just saw with the grains component, any grain products that do not meet the WGR definition are not creditable.

Remember that to be WGR, grain product must contain at least 50 percent whole grains by weight, any remaining grain ingredients are enriched and any noncreditable grain ingredients are less than 2 percent of the product formula (no more than 3.99 grams for groups A-G or 6.99 grams for groups H and I).

This is the reverse of the WGR definition.



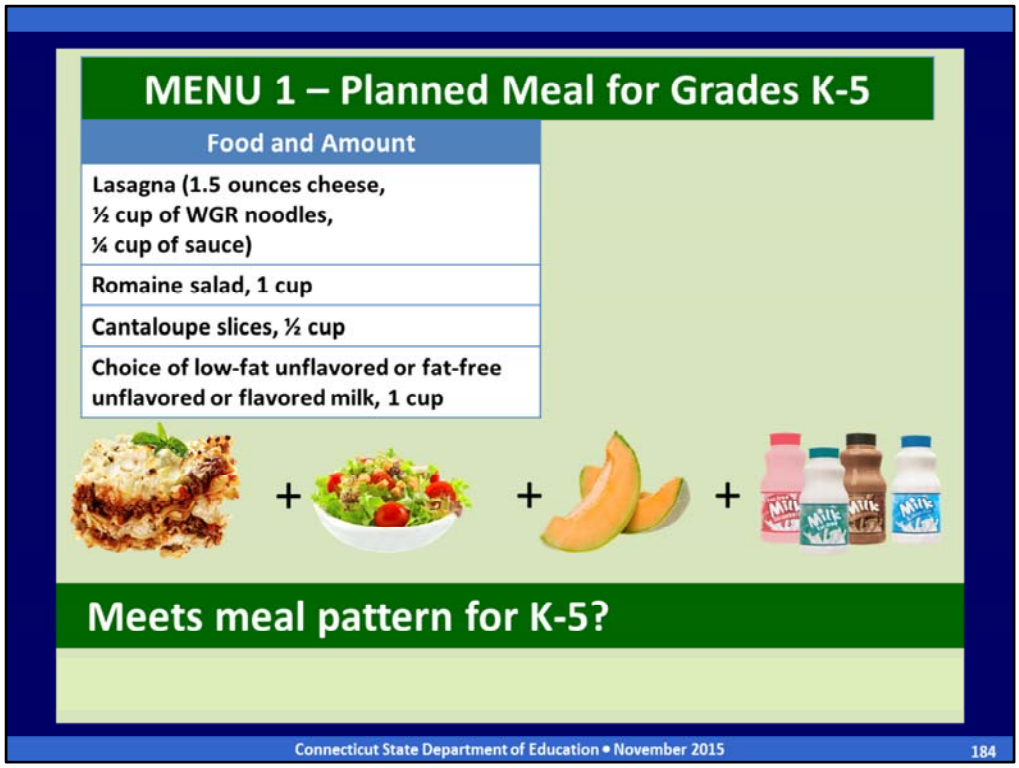

Now let's review some menus to see whether they are planned correctly to meet the meal pattern requirements for lunch. Take out worksheet 4 – Menu Planning and your lunch meal pattern handout.

Working together as a group, you have about 3 minutes to review your menu and determine if it meets the **daily** meal pattern requirements for the grade group indicated. If not, indicate what modifications are needed for a reimbursable meal.

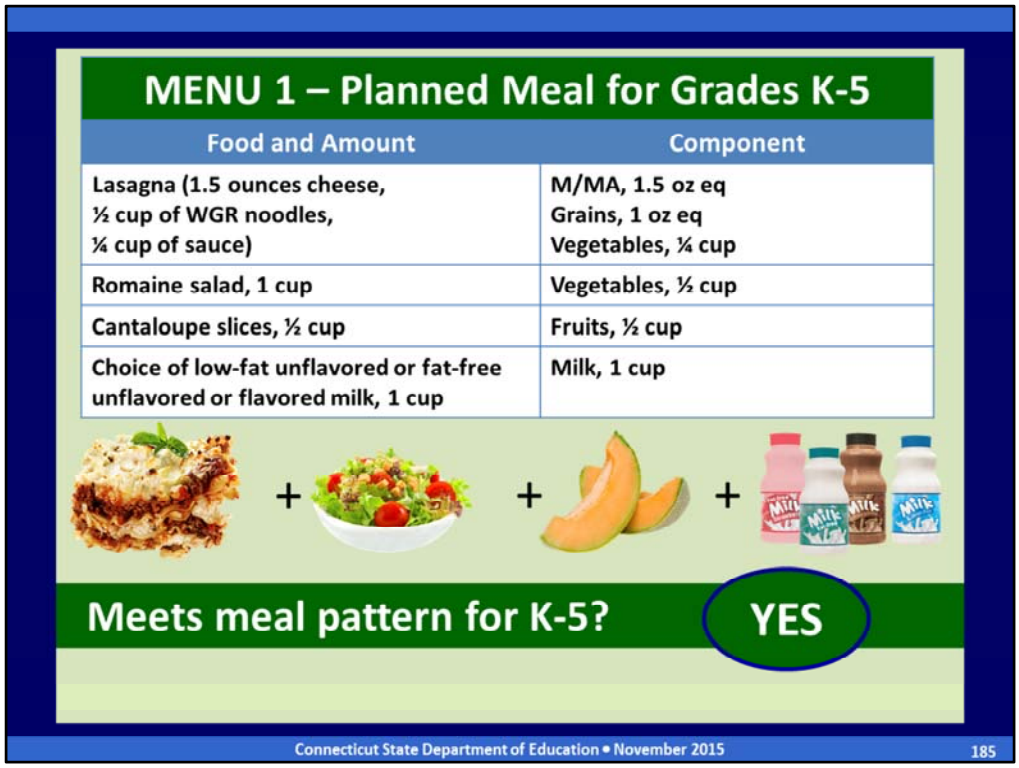
Note that for this activity, we are only looking at the **DAILY** requirements and are not concerned with the weekly requirements such as the vegetable subgroups.

**INSTRUCTOR NOTES:**

- Divide participants into four groups (count off by fours).
- Assign each group one menu. Group 1 has menu 1, group 2 has menu 2, group 3 has menu 3 and group 4 has menu 4.
- Give groups 3 minutes to review the menu and determine whether it complies with the meal pattern and if not, what changes are needed.
- Ask each small group to report the answer to the entire group. The person who has worked in school meals for the longest time is the reporter.
- **Activity Modification:** If time is short, do together with all participants as one group.




Does this menu meet the lunch meal pattern requirements for grades K-5?




Yes, this menu is planned to include all **five** food components in at least the minimum portion sizes for grades K-5.

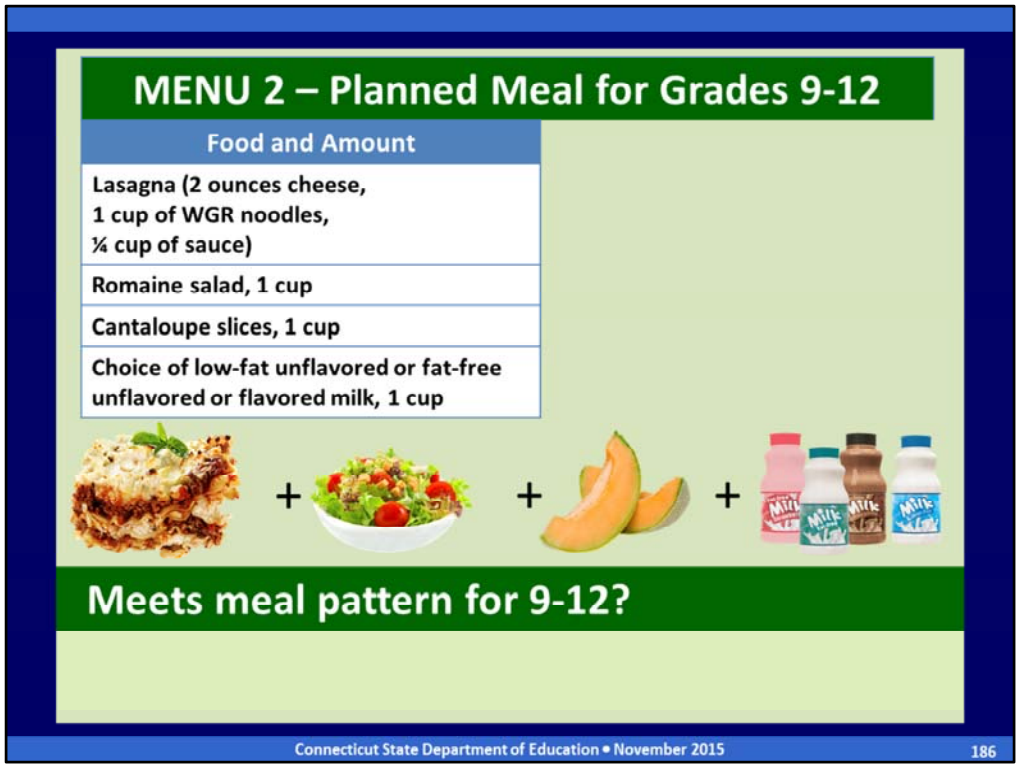
- **Meat/Meat Alternates:** 1.5 ounces of cheese counts as 1.5 oz eq M/MA, which exceeds the minimum daily requirement of **1 oz eq.**

- **Grains:** ½ cup of WGR noodles counts as 1 oz eq grains, which is the same as the minimum daily requirement of **1 oz eq.**

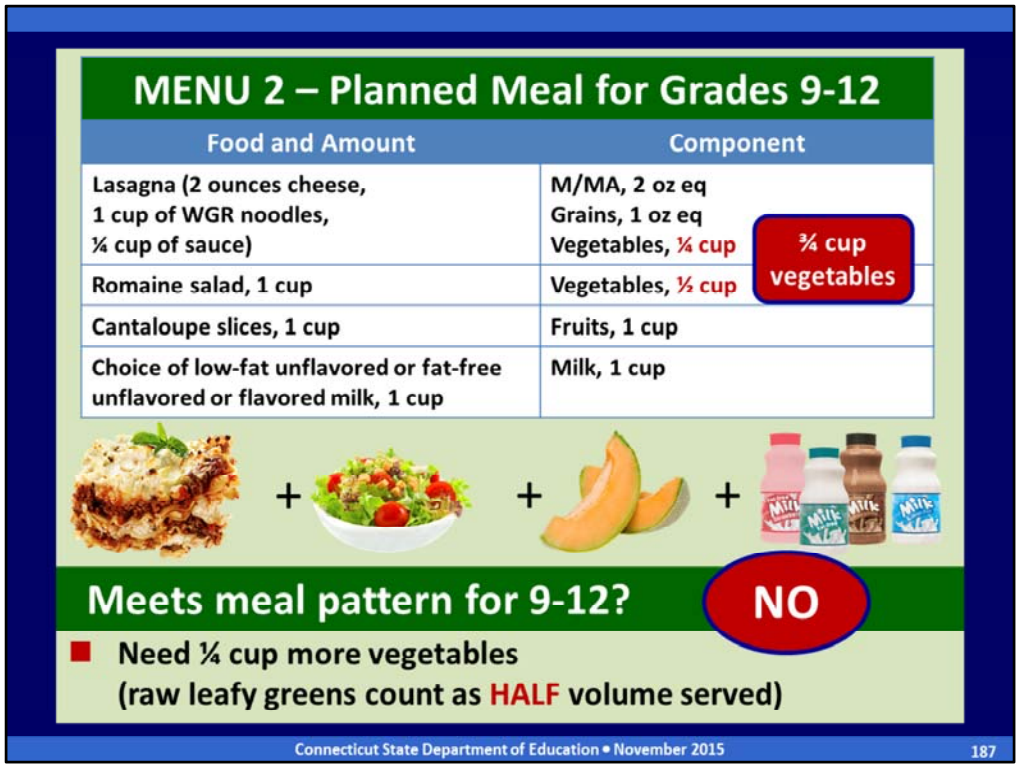
- **Vegetables:** 1 cup of salad (½ cup V*) plus tomato sauce in lasagna (¼ cup V) equals ¾ cup total, which is the same as the minimum daily requirement of **¾ cup**. Remember that raw leafy greens count as only half of the volume served, so the 1 cup of romaine salad counts as ½ cup of vegetables.

- **Fruits:** ½ cup fruit meets the minimum daily requirement of **½ cup**.

- **Milk:** 1 cup of milk meets the minimum daily requirement of **1 cup**. The types of milk comply. All milk must be low-fat unflavored or fat-free (flavored or unflavored).




Does this menu meet the lunch meal pattern requirements for grades 9-12?




No. This menu includes only four food components in the appropriate portion sizes for grades 9-12. The vegetables component requires 1 cup for grades 9-12 but this meal contains only ¾ cup total (1 cup of salad and ¼ cup of tomato sauce). It needs ¼ cup more vegetables to comply.

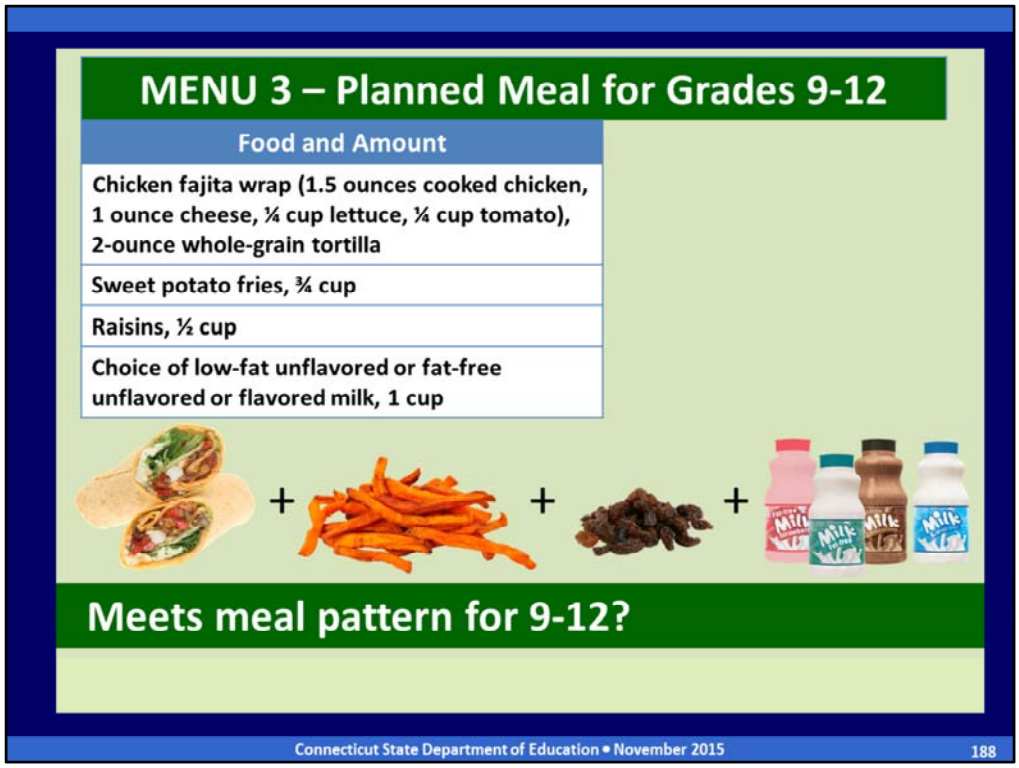
- **Meat/Meat Alternates:** 2ounces of cheese counts as 2 oz eq M/MA, which meets the minimum daily requirement of **2 oz eq.**

- **Grains:** 1 cup of WGR noodles counts as 1 oz eq grains, which is the same as the minimum daily requirement of **2 oz eq.**

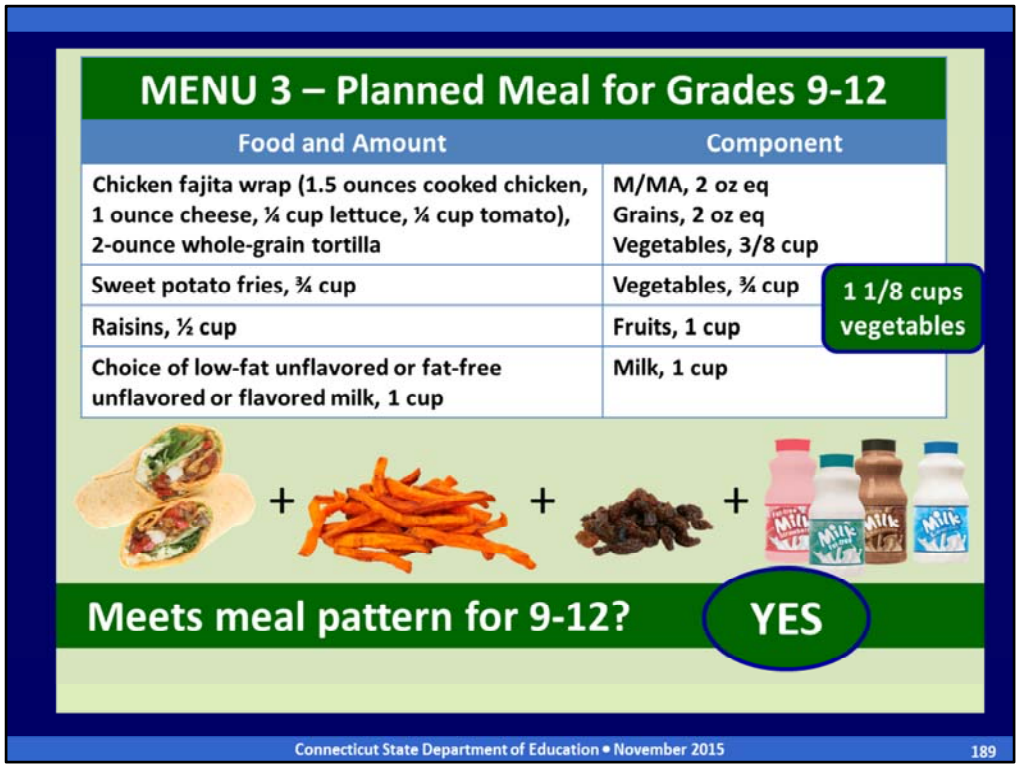
- **Vegetables:** 1 cup of salad (½ cup V) plus tomato sauce in lasagna (¼ cup V) equals ¾ cup total, which does not meet the minimum daily requirement of **1 cup**. Remember that raw leafy greens count as only HALF of the volume served, so the 1 cup of romaine salad counts as ½ cup of vegetables.

- **Fruits:** ½ cup fruit meets the minimum daily requirement of **½ cup**.

- **Milk:** 1 cup of milk meets the minimum daily requirement of **1 cup**. The types of milk comply. All milk must be low-fat unflavored or fat-free (flavored or unflavored).




Does this menu meet the lunch meal pattern requirements for grades 9-12?




Yes, this menu is planned to include all **five** food components in the appropriate portion sizes for grades 9-12

- **Meat/Meat Alternates:** 1.5 ounces of cooked chicken and ½ ounce of cheese counts as 2 oz eq M/MA, which is the same as the minimum daily requirement of **2 oz eq.**

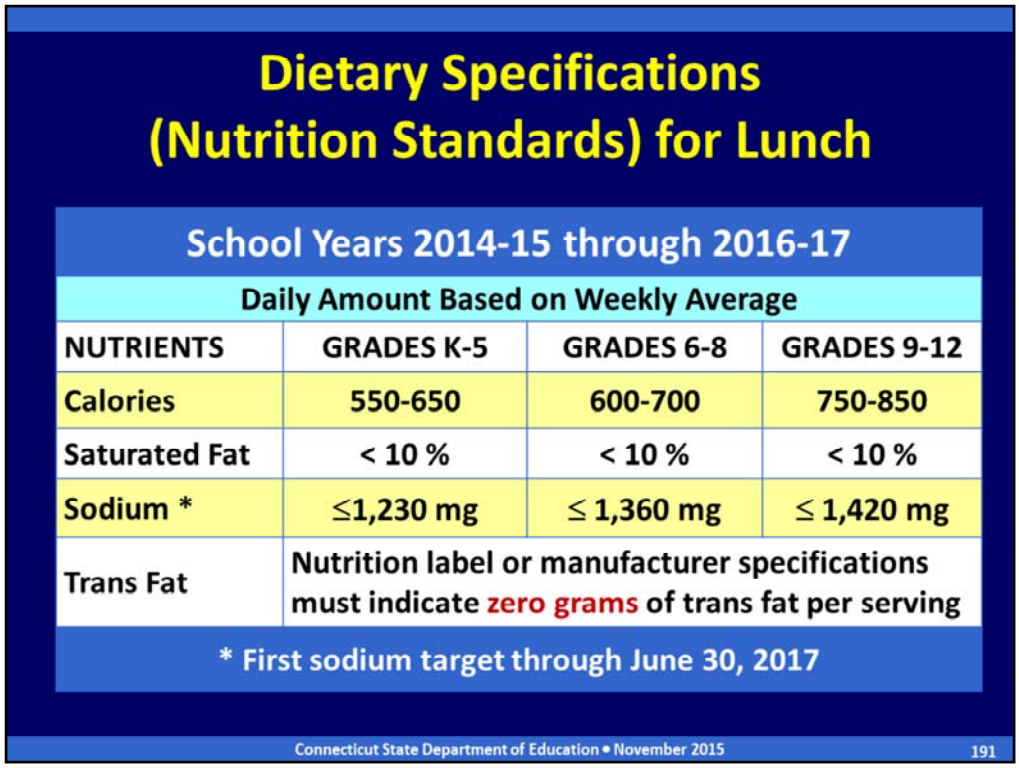
- **Grains:** 2 ounces of WGR tortilla shell counts as 2 oz eq grains, which is the same as the minimum daily requirement of **2 oz eq.**

- **Vegetables:** ¼ cup of lettuce counts as 1/8 cup (raw leady greens credit at half the column served) and ¼ cup of tomato in the fajita total 3/8 cup, plus ¾ cup of sweet potatoes fries equals 1 1/8 cups total, which exceeds the minimum daily requirement of **1 cup**.

- **Fruits:** ½ cup of raisins meets the minimum daily requirement of **1 cup**. Remember that dried fruit counts as **twice** the volume served, so ½ cup of raisins counts as 1 cup of fruit.

- **Milk:** 1 cup of milk meets the minimum daily requirement of **1 cup**. The types of milk comply. All milk must be low-fat unflavored or fat-free (flavored or unflavored).


That concludes the discussion of the meal components. We will now focus on the dietary specifications (nutrition standards) within the meal pattern.




This chart shows the dietary specifications (nutrition standards) for lunch. These are based on the weekly average of a five-day or seven-day week.

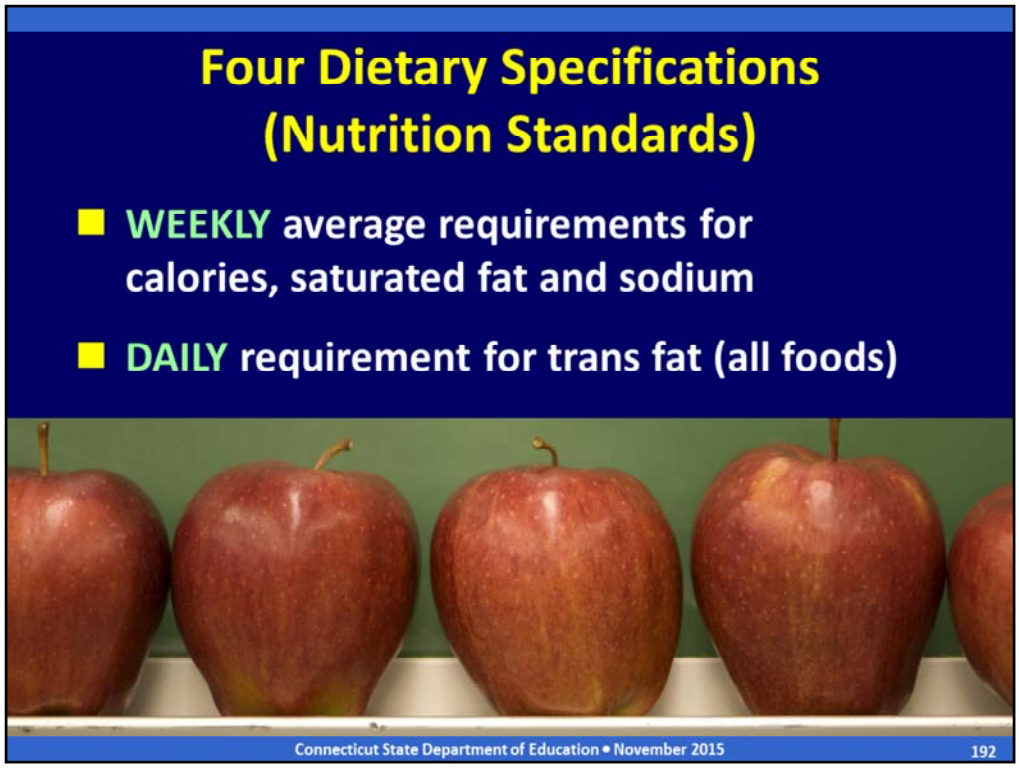
Take a look at your meal pattern handout.

**Ask participants:** Do you see these on your meal pattern handout?

You will find it just below the meal components. Notice that this chart is part of the meal pattern. The dietary specifications are right under the meal components and serving sizes, and are part of the meal pattern requirements.

In addition to complying with the meal pattern components, schools must also meet four dietary specifications. This is intended to improve the consistency of school meals with the Dietary Guidelines and the Dietary Reference Intakes.

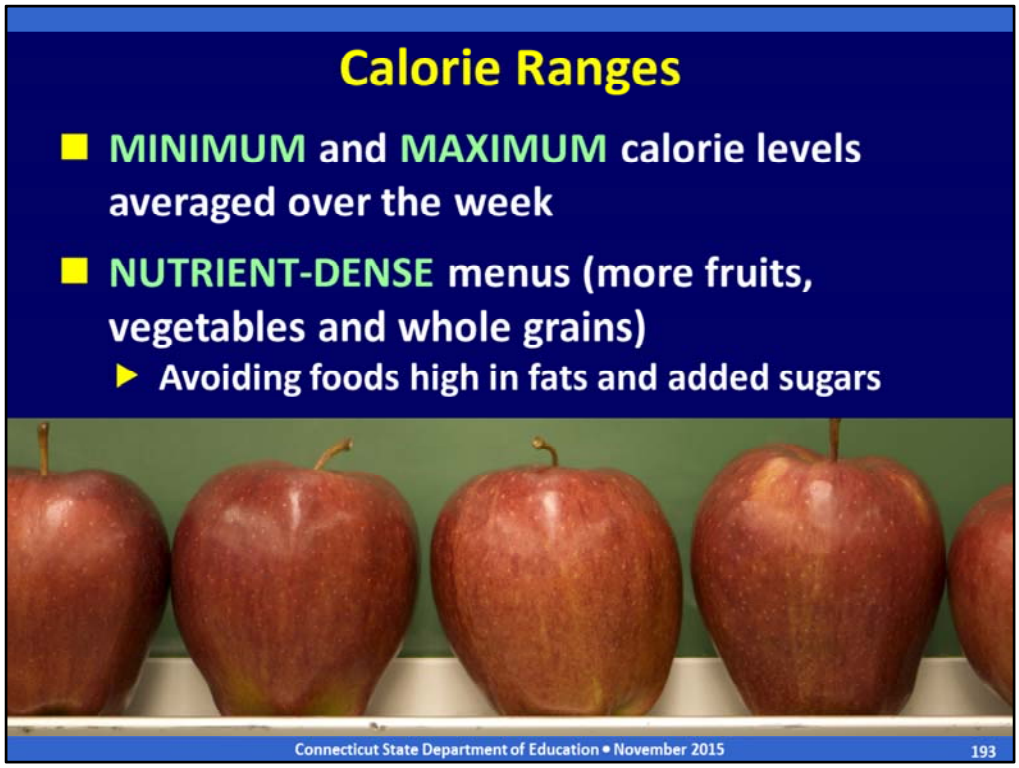
These specifications are calories, sodium, saturated fat and trans fat. Let's look at each nutrition standard in more detail.




The nutrition standards must be met on average over the school week. This means that the levels of calories, saturated fat and sodium in **any one meal** could exceed the standard as long as the **average over the week** meets the standard.

Fro example, menu planners may be able to offer a meal or food that is relatively high in saturated fat or sodium at some point during the week, if meals with lower to moderate saturated fat or sodium content are offered the rest of the week.

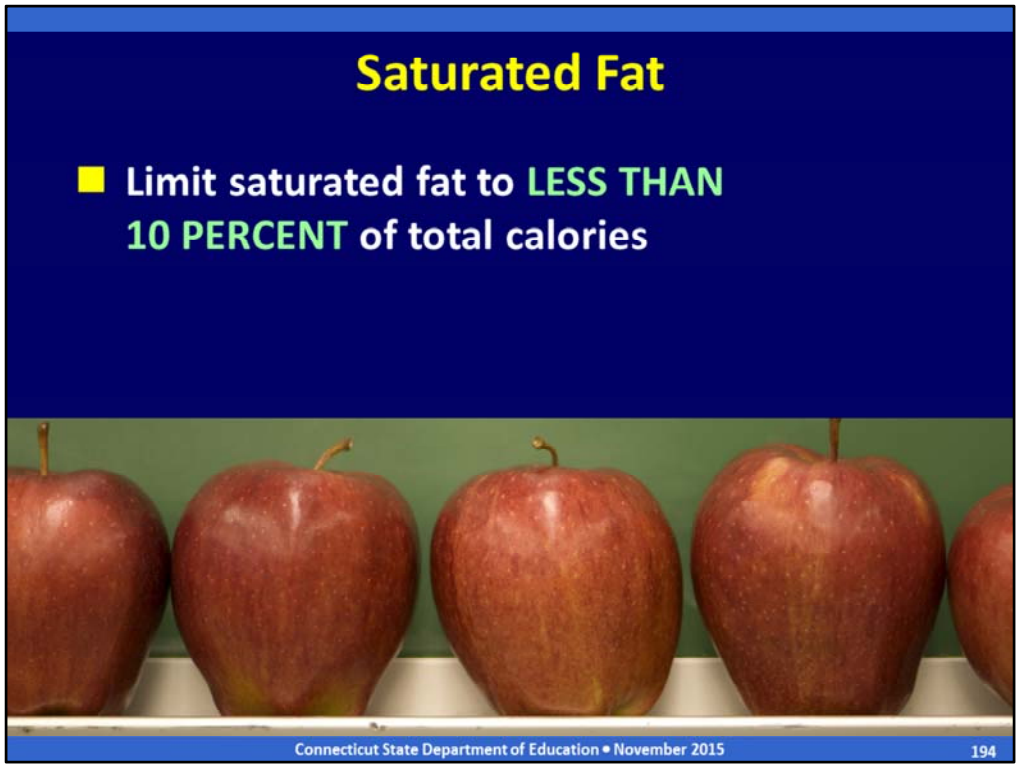
However, for trans fat, all food products and ingredients used daily must contain zero grams of trans fat per serving.




The first dietary specification is calorie ranges, including minimums and maximums for each grade group**.** Schools must meet the calorie ranges on average over the school week. The weekly calorie ranges apply to the school meal offered on average over the week, not per student.

The specified calorie ranges are based on evidence about children's intakes at meals and snacks, and were designed based on age-appropriate nutrition and physical activity habits of the average student. The USDA's intent is not to reduce the amount of food but to avoid excessive calories by serving more nutrient-dense foods.

The meal patterns provide more fruits, vegetables and whole grains to provide nutrient-dense school meals. The required maximum calorie levels are expected to drive menu planners to select nutrient-dense foods and ingredients to prepare meals, and avoid products that are high in fats and added sugars.

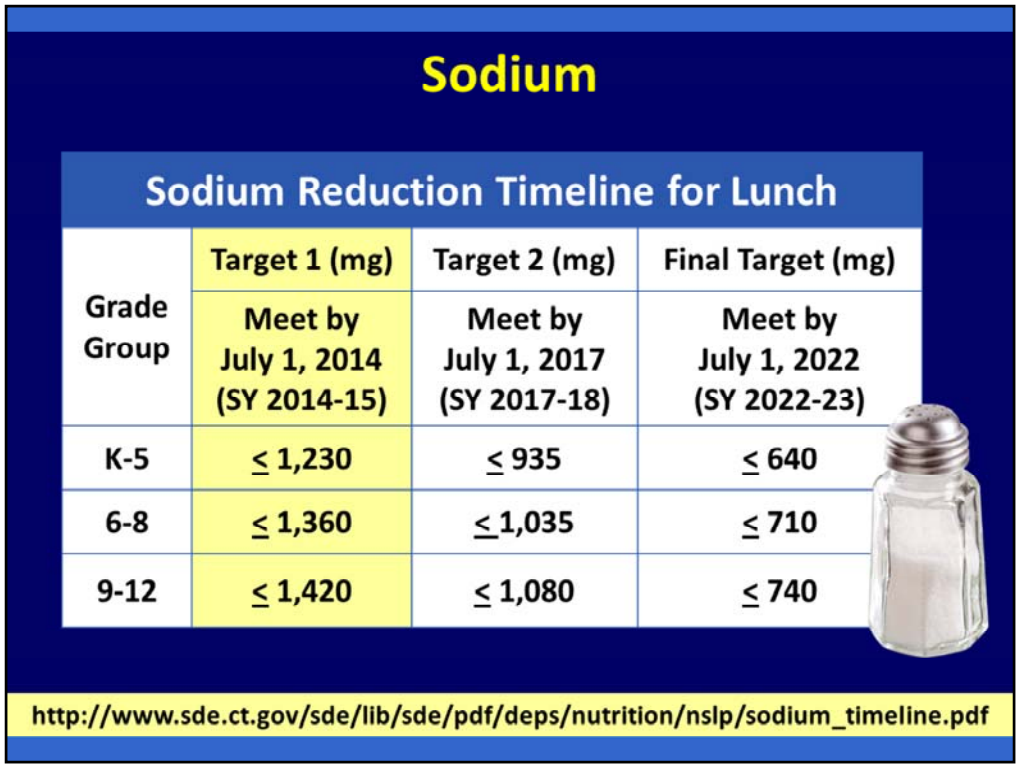



The next dietary specification is saturated fat. Average weekly meals must contain less than 10 percent of calories.

Schools are not required to meet a total fat standard. The Dietary Guidelines emphasize that the **type** of fat consumed is more important than **total** fat in terms of preventing diet-related disease such as heart diseases, cancer and stroke.

**Ask participants:** Why are we concerned about children's saturated fat intake? Saturated fat, and particularly trans fat, have the most negative health consequences, which is why the USDA dietary specifications focus on reducing these two types of fat.

Saturated fats are harmful to our health. Research shows that eating high amounts of saturated fat is associated with higher levels of blood total cholesterol and low-density lipoprotein (LDL) cholesterol, the "bad" cholesterol. Higher total and LDL cholesterol levels are risk factors for cardiovascular disease.

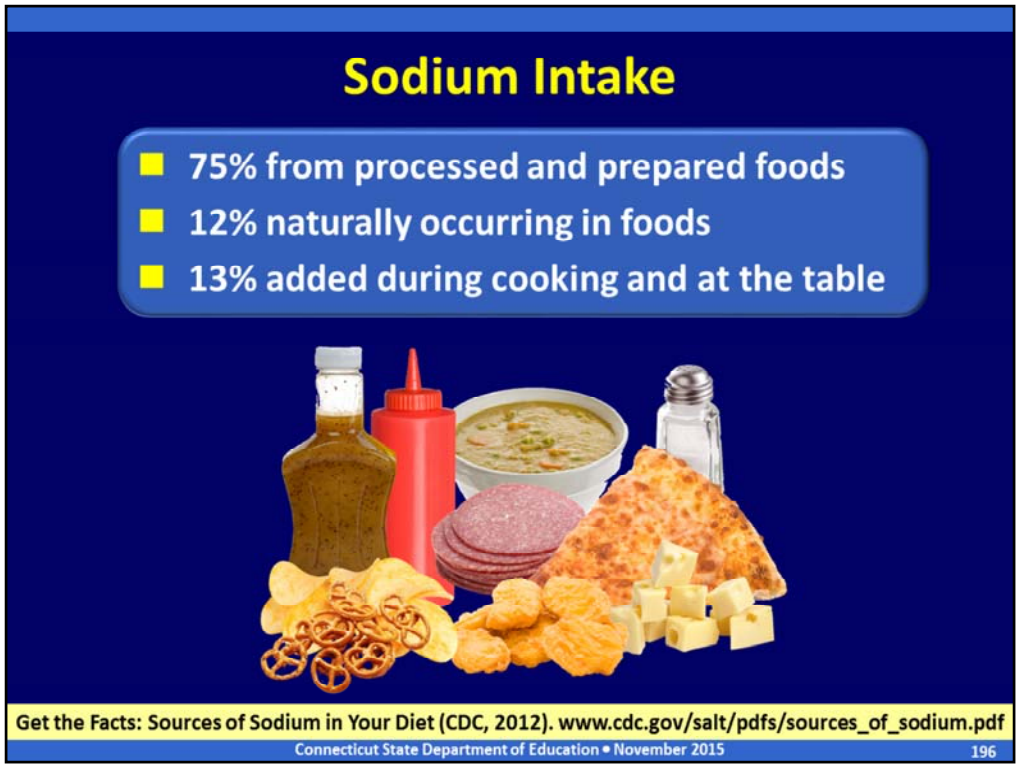



The next standard is for sodium. This chart summarizes the required sodium reductions at lunch. The sodium limit includes both naturally occurring sources (like milk and bread) and added sources, e.g., salt in processed foods.

You can see the gradual phase-in of the three targets for each grade group. The first sodium target took effect in school year 2014-15. The second sodium target takes effect July 1, 2017, and the third and last sodium target takes effect July 1, 2022.

**Ask participants:** Why are we concerned about children's sodium intake? In some people, sodium increases blood pressure because it holds excess fluid in the body, creating an added burden on the heart. Since blood pressure rises with age, helping children eat less sodium now will help curb that increase and reduce children's risk of developing other conditions associated with too much sodium, such as stroke, heart failure, osteoporosis, stomach cancer and kidney disease.* This is why the USDA dietary specifications focus on reducing sodium in school meals.

* Source: About Sodium (Salt). American Heart Association. https://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/HealthyEating/About-Sodium-Salt_UCM_463416_Article.jsp)




Let's briefly review some information and resources to help schools plan menus to meet the sodium target.

Most sodium (about 75 percent) in our diet comes from eating processed and prepared foods, such as canned vegetables, soups, luncheon meats, and frozen entrees. Food manufacturers use salt or other sodium-containing compounds to preserve food as well as to modify the taste and texture.

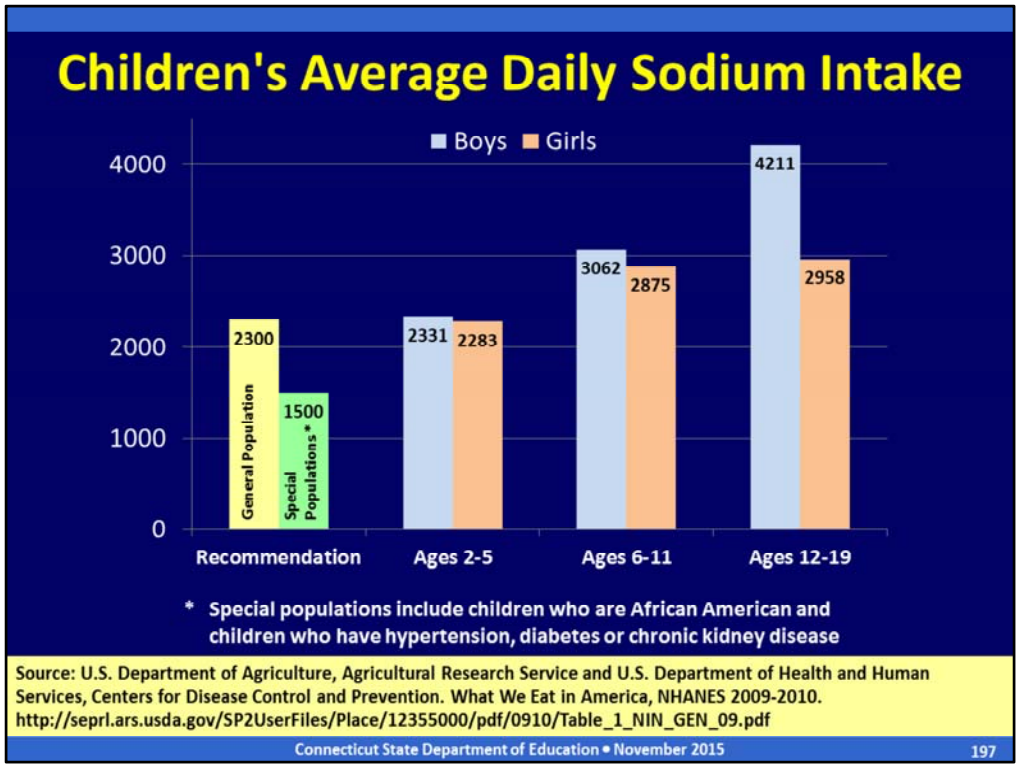
Sodium that naturally occurs in foods such as meat, poultry, dairy products and vegetables accounts for only about 12 percent of our sodium intake.

About 13 percent is added during cooking or at the table.

**Ask participants:** So what does this tell us?

We can have the greatest impact on the amount of salt in school menus by being careful about what we **purchase**, e.g., reading product labels and specifying foods that are lower in sodium.

When cooking, we can limit ingredients that are higher in sodium, for example, condiments such as soy sauce and ketchup. Adding them while cooking or at the table can raise the sodium content of meals.




Most Americans, including children, consume more sodium than they need. This chart show the average daily sodium intake of boys and girls, ages 2 to 19.

Based on the 2010 Dietary Guidelines for Americans, the recommended daily sodium limit is no more than 2,300 milligrams and no more than 1,500 milligrams for special populations such as children who are African American and children who have hypertension, diabetes or chronic kidney disease.

You can see that for both boys and girls, all ages significantly exceed this limit, and the older children get, the more sodium they consume. For example:

- Boys and girls ages 6-11 consume about one-third more than the recommended limit.
- Adolescent boys consume 4,211 milligrams daily – almost double the recommended limit.
- Adolescent girls consume 2,958 milligrams daily – almost one-third more than the recommended limit.

## Sodium Content of Typical Lunch Menus

**SODIUM LIMITS**
**(through June 30, 2017)**
**K-5 1,230**
**6-8 1,360**
**9-12 1,420**


| Food | Portion Size | Sodium (milligrams) * |
|---|---|---|
| Lasagna with meat sauce (commercial) | 5 ounces | 522 |
| Garlic bread | 2 ounces | 305 |
| Garden salad with reduced-fat Italian dressing | 2 cups, 2 tablespoons | 289 |
| Orange slices | ½ cup | 0 |
| Fresh banana | 1 medium | 1 |
| Low-fat milk | 8 fluid ounces | 130 |
| | **TOTAL** | **1,247** |

* Sodium values represent typical sodium content of these foods but are not valid for all varieties or brands
* When evaluating school menus, use sodium content of actual foods purchased and prepared

Source: USDA National Nutrient database (http://ndb.nal.usda.gov/)

Connecticut State Department of Education • November 2015 198

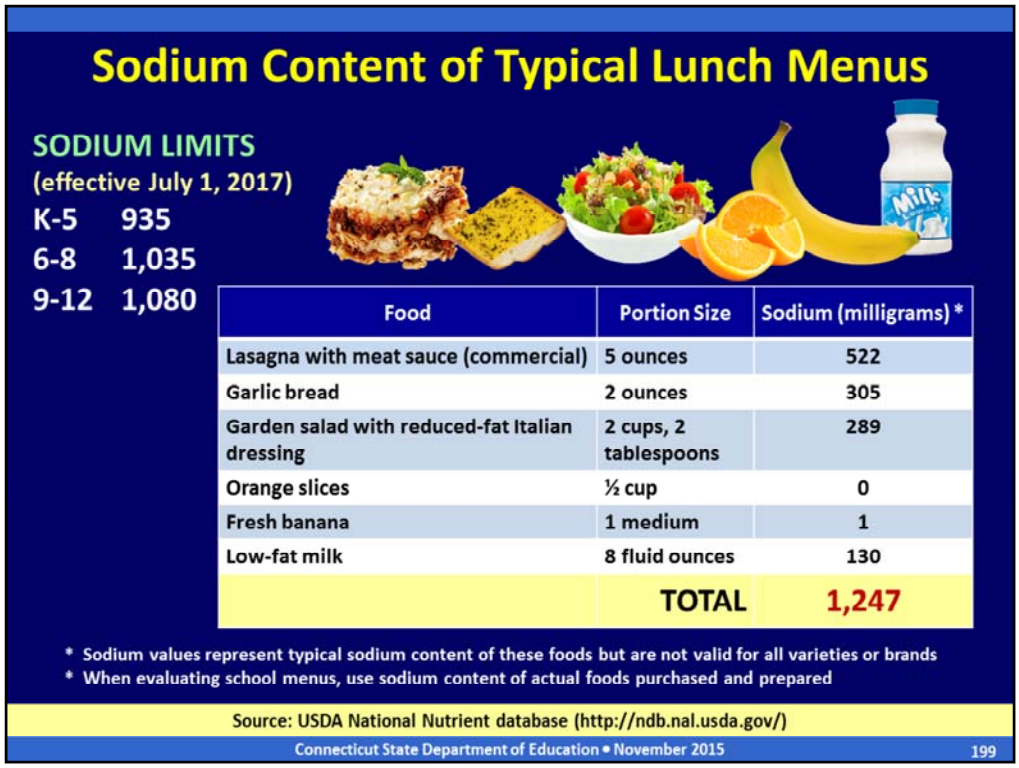
So how much sodium is in our school meals? Let's look at the sodium content of some typical lunch menus. These nutrition values are based on the USDA National Nutrient database.

Note that these sodium values are representative of **typical sodium content** of these foods but are not valid for all varieties or brands of these foods. When evaluating school menus for compliance with the sodium standard, menu planners should use the sodium content of the **actual foods purchased and prepared** for the breakfast menu.

This menu meets the meal pattern requirements for all grades because it contains 2 ounce equivalents of M/MA, 2 ounce equivalents of grains, 1 cup of vegetables, 1 cup of fruit and milk. The sodium limits listed for each grade group are in effect only for school years 2014-15 through 2016-17 (through June 30, 2017): 1,230 milligrams for grades K-5; 1,360 milligrams for grades 6-8; and 1,420 milligrams for grades 9-12.

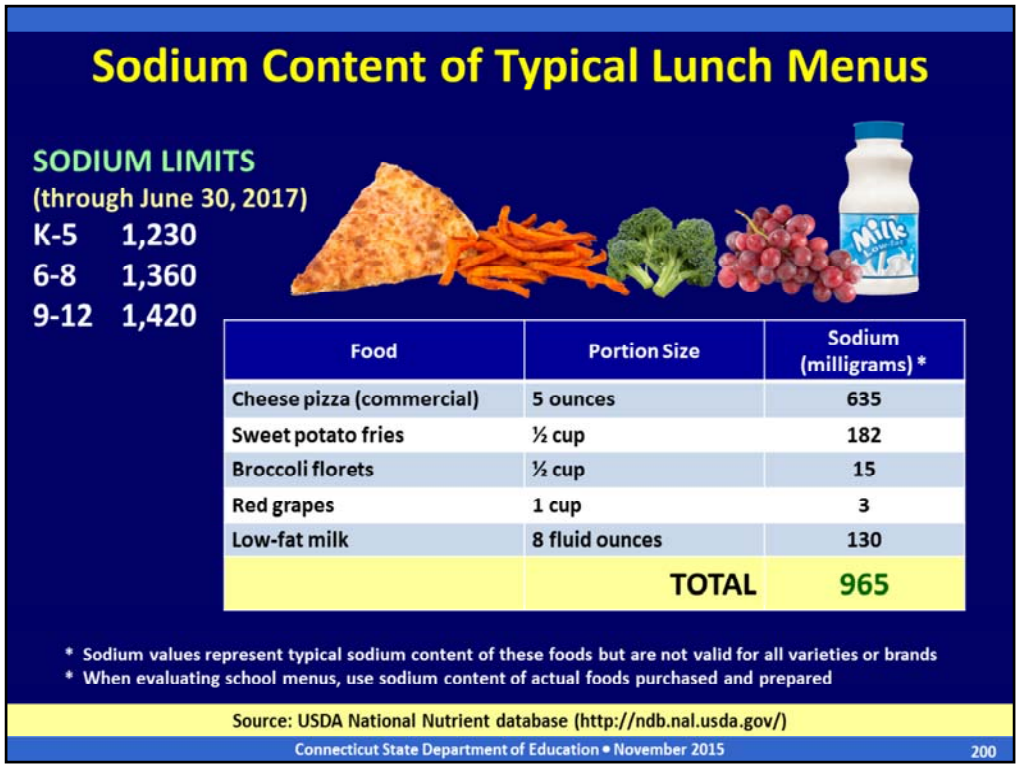
This menu contains **1,247 milligrams** of sodium from lasagna, garlic bread, salad with reduced-fat Italian dressing (most of the sodium in the salad comes from the dressing, 267 milligrams) and low-fat milk. This amount is above the sodium limit for grades K-5, but is within the sodium limit for grades 5-8 and 9-12.

Since this menu meets the portion sizes for grades 9-12, it could be modified to provide smaller serving sizes for grades K-5, which would meet the sodium limit.




However, effective July 1, 2017, when the second sodium target takes effect, this menu will **not** meet the sodium limits for any grade group.

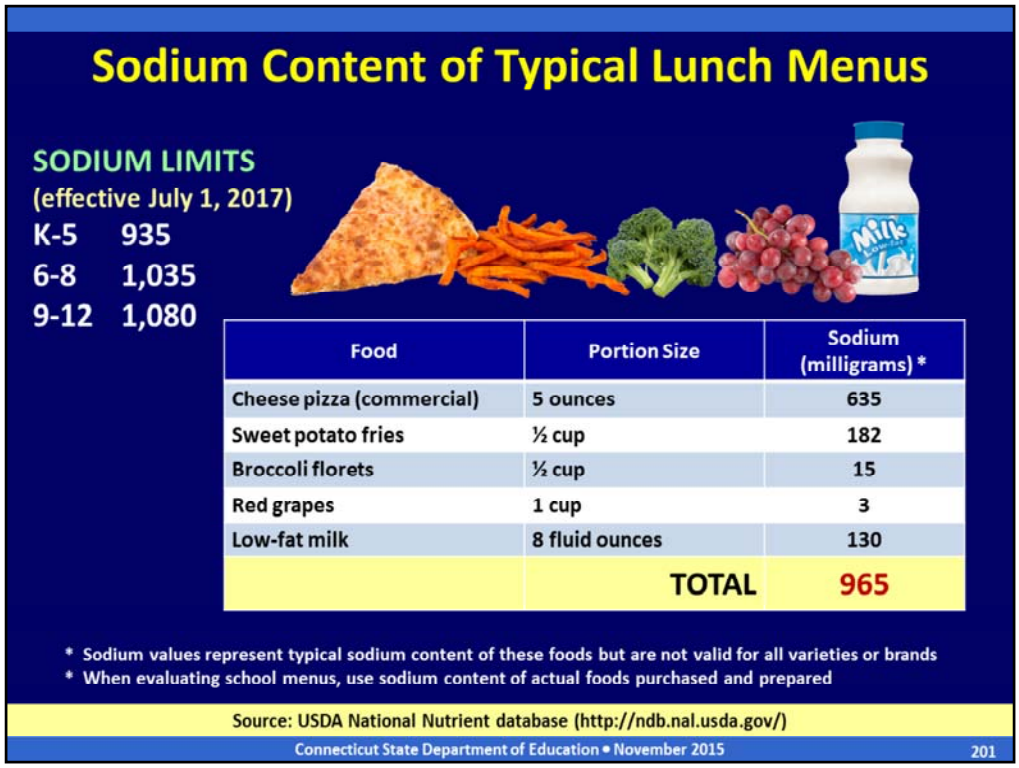
During the next three years, it is important for schools to begin working to plan menus and purchase products that will reduce sodium levels, so that weekly menus can meet the sodium limits for each grade group.




Here is another example for the next three school years (through June 30, 2017).

This menu meets the meal pattern requirements for all grades because it contains pizza (2 ounce equivalents of M/MA, 2 ounce equivalents of grains), broccoli florets (1 cup of vegetables), red grapes (1 cup of fruit) and milk (1 cup).

The total sodium content is **965 milligrams**. This amount is well below the first required sodium limit for each grade group, which is in effect for the next three school years 2014-15, 2015-16 and 2016-17 (through June 30, 2017): 1,230 milligrams for grades K-5; 1,360 milligrams for grades 6-8; and 1,420 milligrams for grades 9-12.

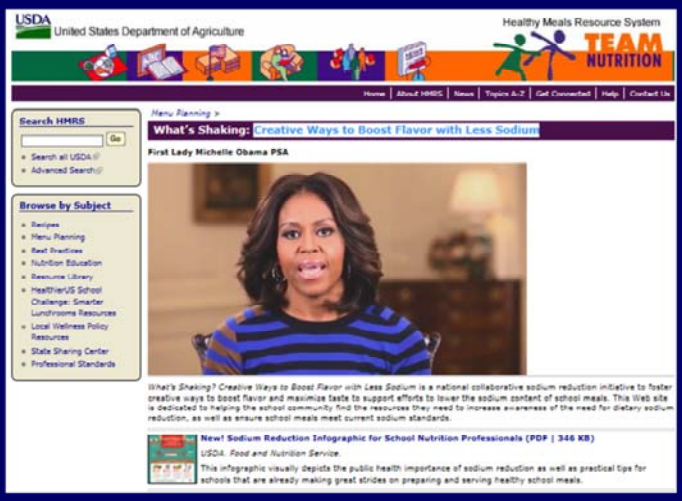



However, effective July 1, 2017, when the second sodium target takes effect, this menu will **not** meet the sodium limits for grades K-5.

Again, during the next three years, it is important for schools to begin working to plan menus and purchase products that will reduce sodium levels, so that weekly menus can meet the sodium limits for each grade group.

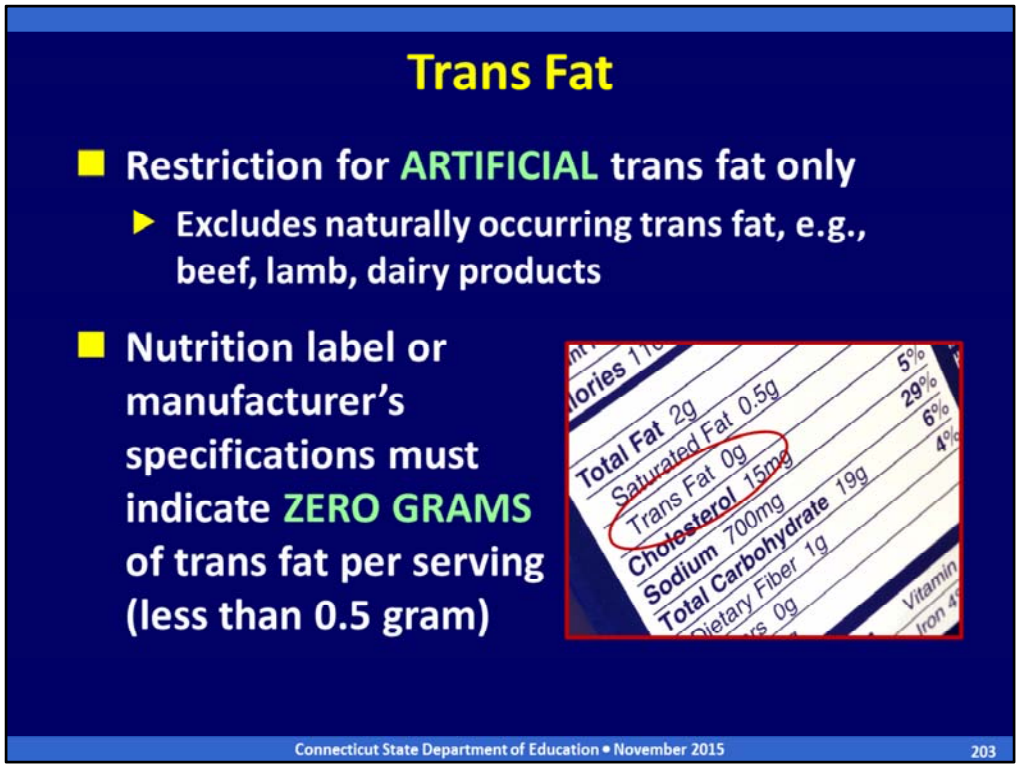
Remember that after the second target, there is another five years before schools have to meet the last sodium target, on July 1, 2022.

# Creative Ways to Boost Flavor with Less Sodium




http://healthymeals.nal.usda.gov/whatsshaking

Connecticut State Department of Education • November 2015 202




The last dietary specification is trans fat. This standard is different than the others because it applies to **all** food products and ingredients used to prepare school meals, not the weekly average of school meals. Menu planners should develop food procurement specifications and recipes to meet this standard.

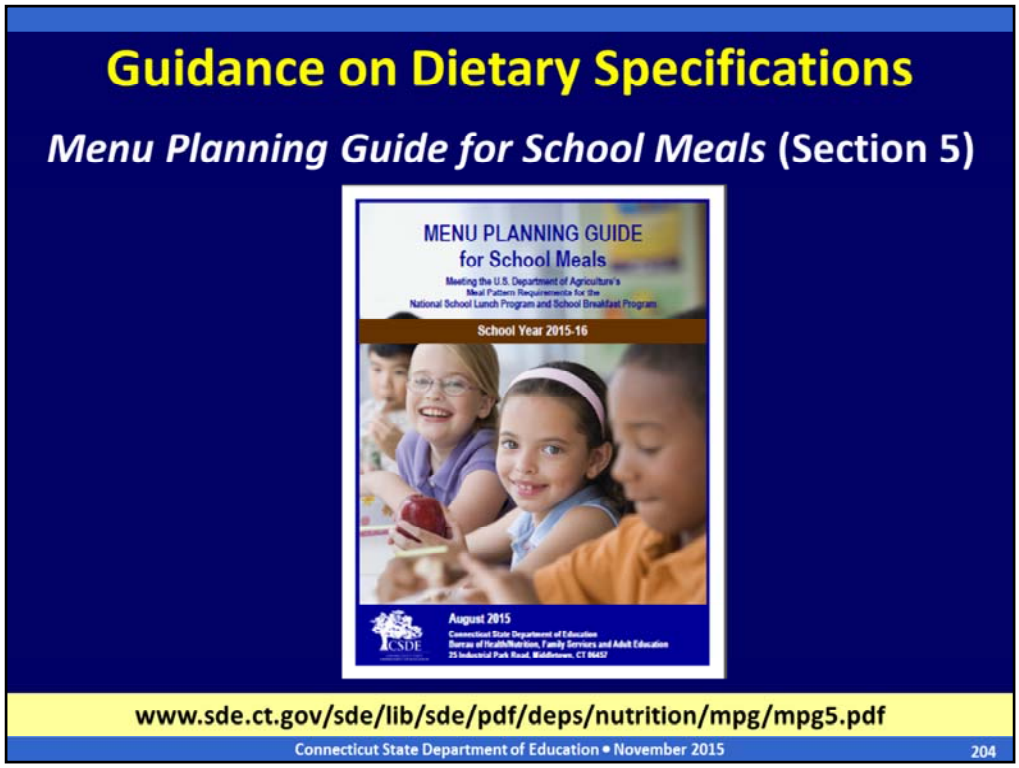
The requirement applies only to **artificial** trans fat, not the naturally occurring trans fat found in products such as beef, lamb and dairy products. Schools must ensure that the nutrition label or manufacturer specifications for food products and ingredients used to prepare meals indicates zero grams of trans fat per serving. The USDA trans fat standard uses the Food and Drug Administration's (FDA) definition of "zero trans fat" for food labeling, which allows manufacturers to claim "0" on the food label if the product contains less than 0.5 gram of trans fat per serving.

When foods contain **both** added and naturally occurring fats, schools must obtain additional information from the manufacturer to determine if the artificial trans fat meets the requirements for zero (less than 0.5 grams) trans fat. For example, a burrito could have partially hydrogenated oil in the tortilla shell (artificial source), as well as trans fat from the beef (natural source).

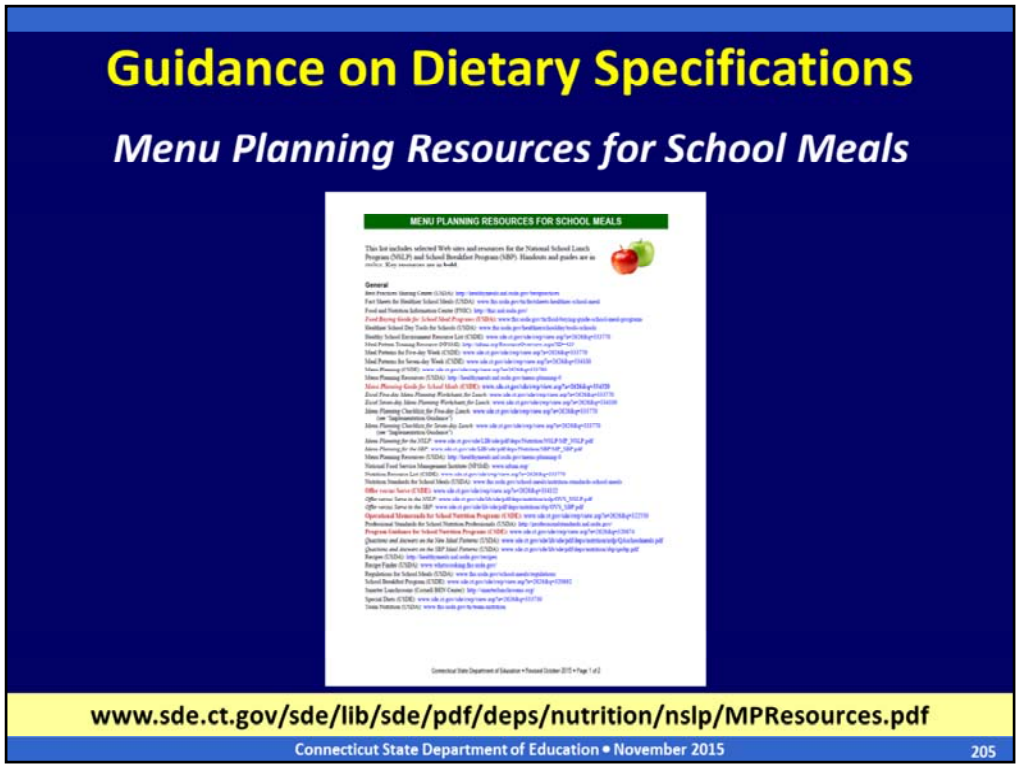
**Ask participants:** Why do the USDA dietary specifications focus on reducing trans fat?

Trans fats are a type of saturated (solid) fat made from vegetable oils through the process of hydrogenation – a process used by food manufacturers to make products containing unsaturated fats solid at room temperature (i.e., more saturated) and therefore more resistant to becoming spoiled or rancid. Partial hydrogenation means that some of the unsaturated fat in the oil is converted to saturated fat. This results in the creation of **trans fats,** which cause significant health risks.

The Dietary Guidelines recommend keeping trans fats as low as possible because there is a very strong association between increased trans fats and increased risk of cardiovascular (heart) disease. Trans fats raise the "bad" LDL cholesterol, which increases this risk.




Section 5 of the CSDE's Menu Planning Guide for School Meals contains guidance on limiting calories, saturated fat, trans fats and sodium in school meals. It is available at the link indicated on this slide.




In addition, there are other useful resources for schools. Several of these are included in your Resources handout.

**INSTRUCTOR NOTES:**
Hold up the Resources for School Meals handout. Remind participants that the bolded resources are key resources for schools to use.


Now we will take a look at the requirements for offer versus serve (OVS).

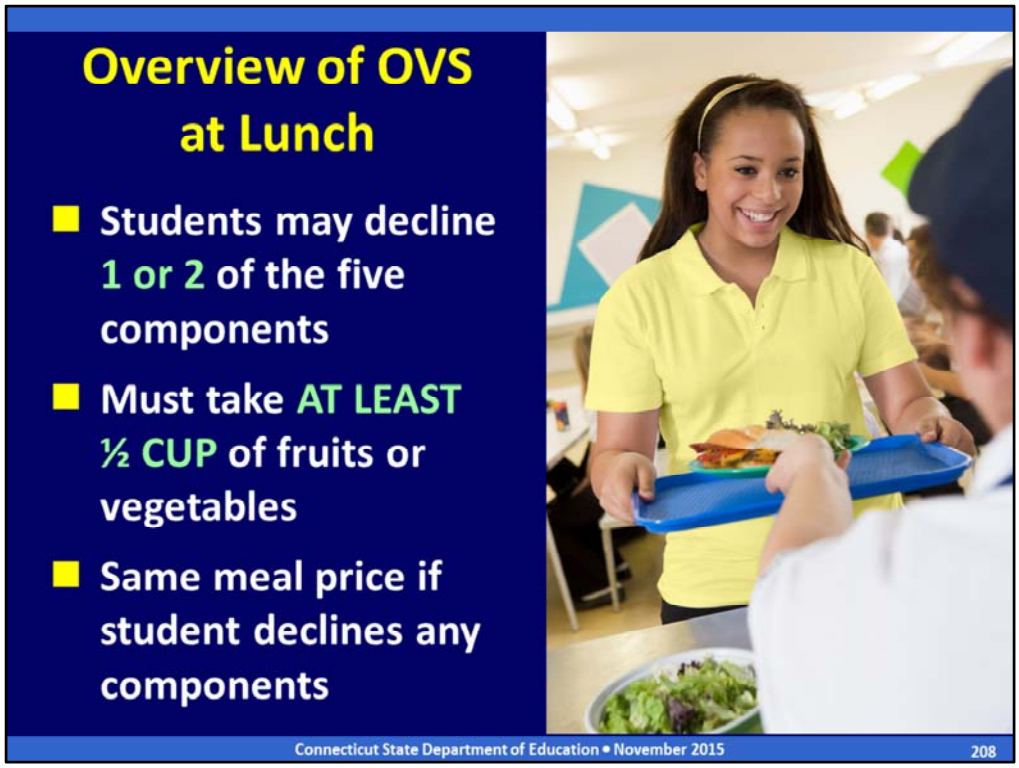
The CSDE's handout, *Offer versus Serve in the National School Lunch Program*, summarizes the requirements for OVS at lunch. It is available on the CSDE's Meal Pattern Web page.


**Ask participants:** How many of you implement offer versus serve (OVS) for lunch in your elementary and middle schools?

The goals of OVS are to minimize plate waste and food costs by allowing students to select the foods they prefer to eat, and encourage schools to offer more food choices.
OVS allows students to decline a certain number of food components in the meal.

- OVS is required in the NSLP for senior high schools but is optional in the NSLP for lower grade schools. High schools are typically grades 9-12 but can also be other grade configurations that are labeled as "high" school.

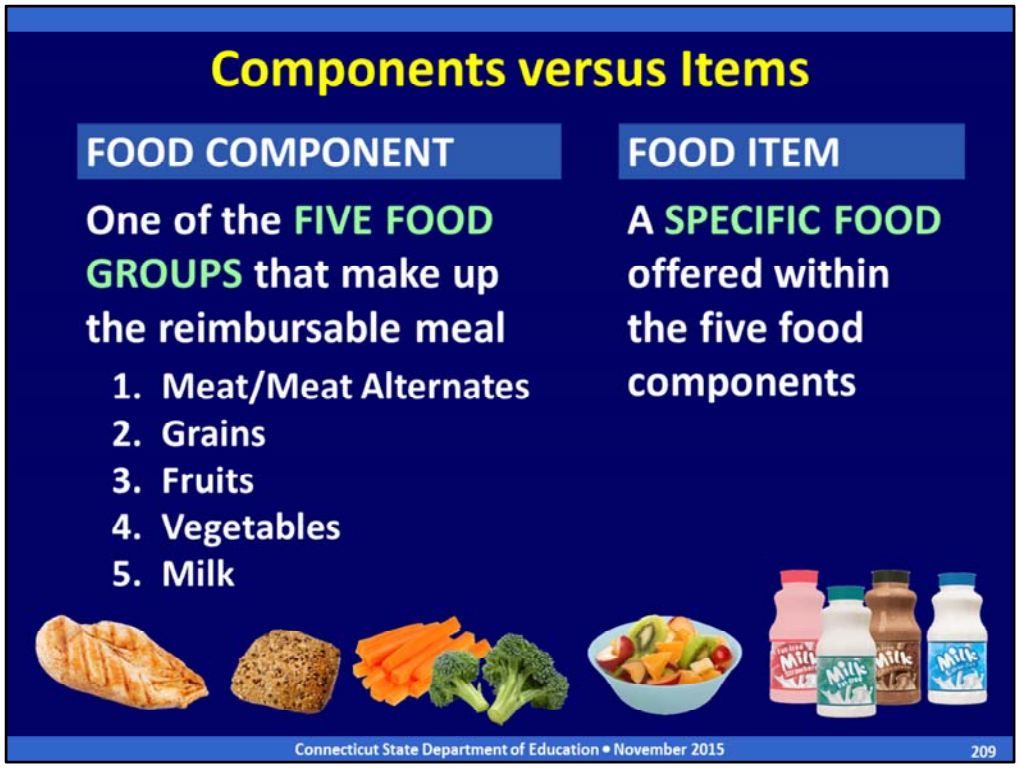
- Schools must offer all five required food components in the full required amounts for each grade group.




Students may decline one or two of the five components. Students decide which components, if any, to decline.

However, students are **required** to select at least ½ cup of the fruits or vegetables component.

The meal price is the same no matter how many components are declined, i.e., same price for three, four or five components.



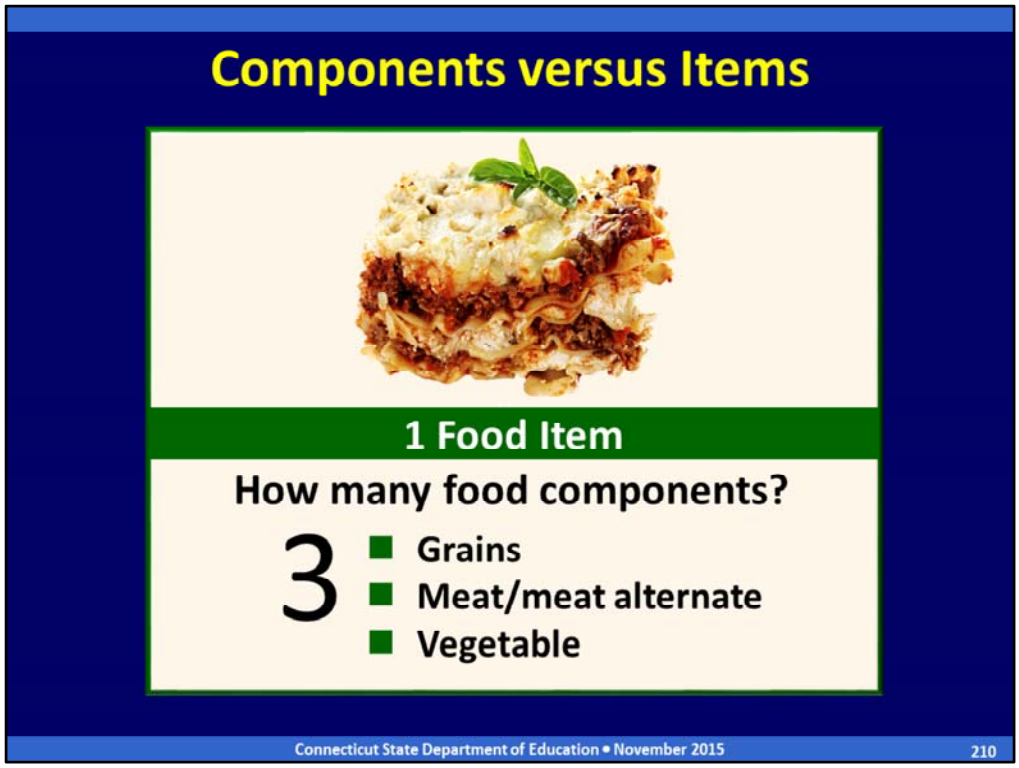

To understand how to implement OVS, it is important to know the difference between food components and food items. These terms are often used interchangeably but they do not mean the same thing.

A **food component** is one of the five food groups that make up the reimbursable meal:

1. Meat/meat alternate
2. Grains
3. Fruits
4. Vegetables
5. Milk

A **food item** is a specific food offered within the five food components. Food items can contain one or more food components.

Let's look at some examples of the difference between food components and items. Each one of these entrees is one food item, however, they all contain more than one food component. For these examples, we are just looking at the individual food item and the daily meal components, not the weekly requirements such as the vegetable subgroups.




This food item is lasagna is made with WGR noodles, cheese and tomato sauce.

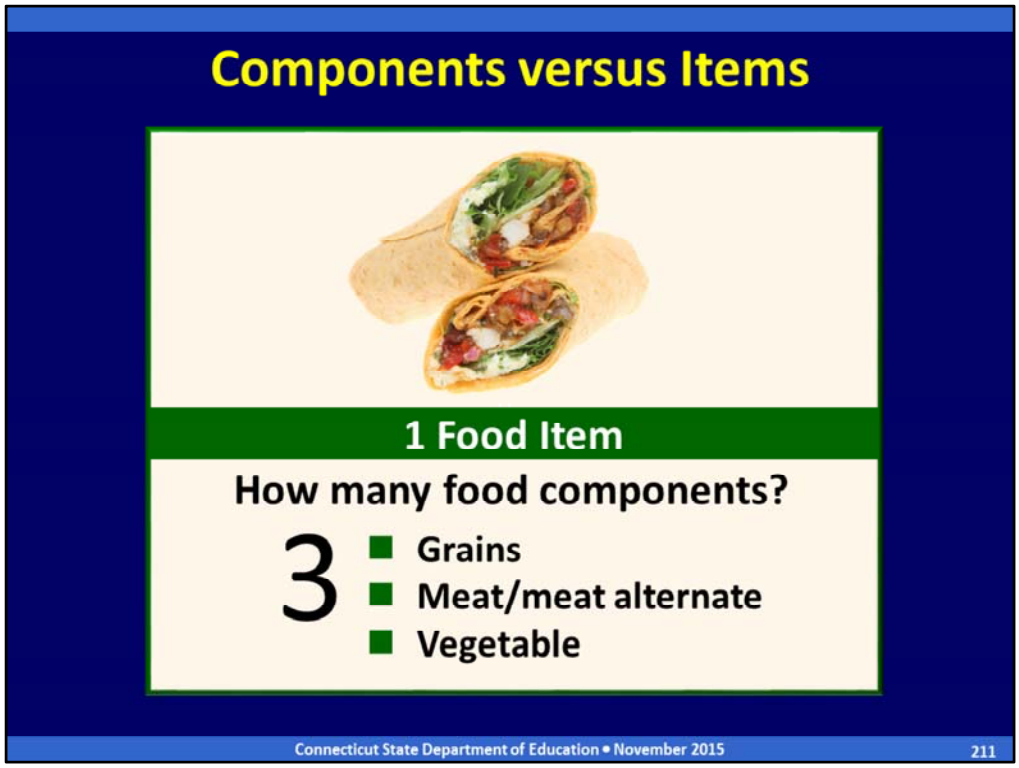
**Ask participants:** How many food components are provided in one serving?

Lasagna contains three food components: noodles (grains), cheese (meat/meat alternate) and tomato sauce (vegetables).

To count toward the vegetables component, the tomato sauce must be at least ⅛ cup per serving. If the menu planner chooses to count the tomato sauce, the meal must also include enough other vegetables to reach the minimum daily total for each grade group.

Menu planners may also choose not to count the tomato sauce, and provide all required daily vegetables from other food items. (This is most common in Connecticut schools). In this case, the lasagna would count as only two components.

**INSTRUCTOR NOTES:** Click brings in the answer.



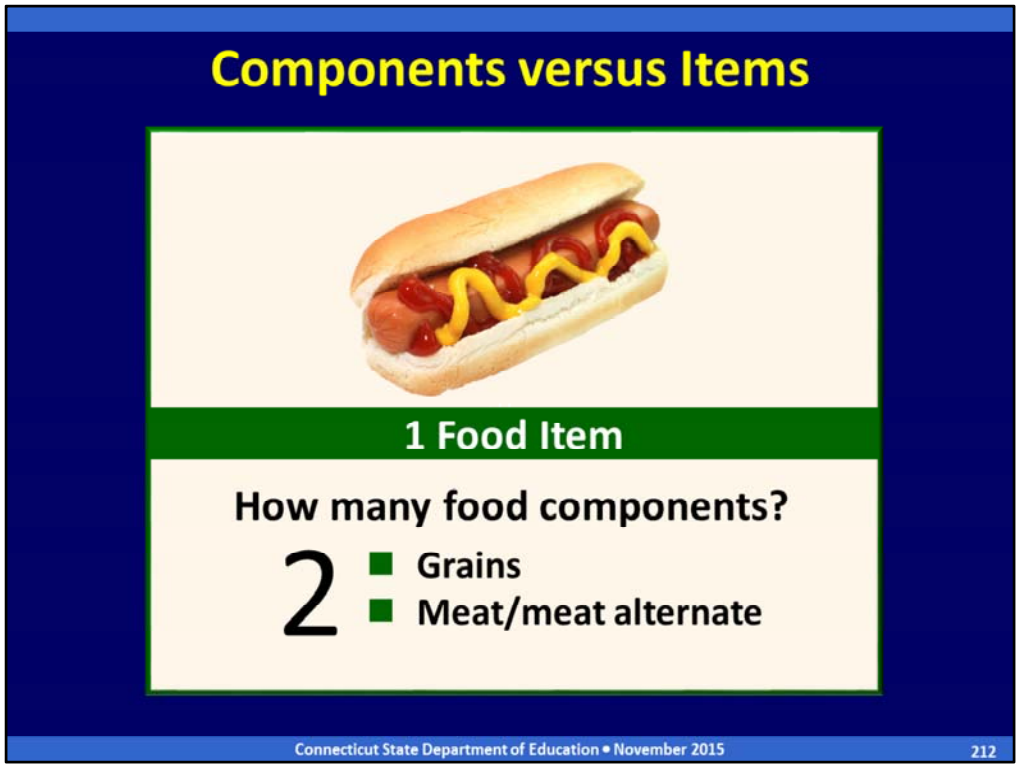

The next food item is a chicken fajita wrap made with a whole-grain tortilla, grilled chicken, shredded cheese, lettuce and tomato.

**Ask participants:** How many food components are provided in one serving?

This chicken fajita wrap contains three food components: whole-grain tortilla (grains), chicken and cheese (meat/meat alternates) and lettuce and tomato (vegetables).

To count toward the vegetables component, the lettuce and tomato combined must be at least ⅛ cup per serving. Remember that raw leafy greens count as **half** the volume served so ¼ cup of lettuce counts as ⅛ cup of vegetables.

**INSTRUCTOR NOTES:** Click brings in the answer.




Here is a hot dog made with a WGR bun and hot dog.

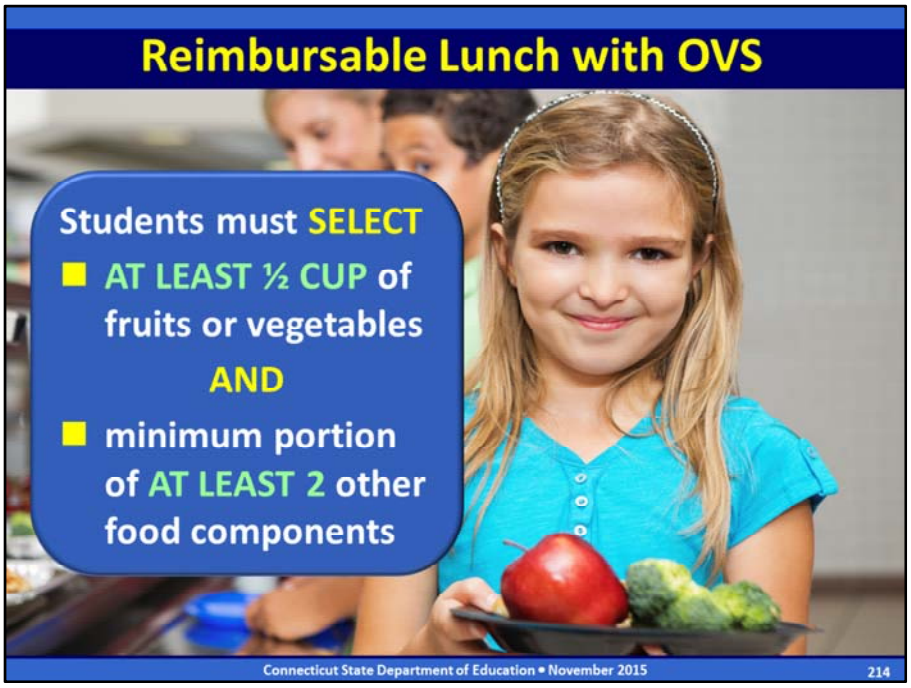
**Ask participants:** How many food components are provided in one serving?

This hot dog is one food item that contains two components: WGR bun (grains), and hot dog (meat/meat alternates).

**INSTRUCTOR NOTES:** Click brings in the answer.


For OVS, schools must plan all menus to meet the daily and weekly meal pattern requirements for(meat/meat alternates, grains, fruits, vegetables and milk.

Schools must offer all five components to all students in the minimum required serving size for each grade group




For a reimbursable meal, students must select at least three of the five components, which must include at least ½ cup of fruits or vegetables and the minimum required portion of at least two other food components. Student selections are based on the **DAILY** menu as offered. Students have different options for meeting the ½-cup requirement for fruits and vegetables. Students can combine:

- different fruits to reach a ½-cup serving, for example students can take ¼ cup of peaches and ¼ cup of apples;
- different vegetables to reach a ½-cup serving, for example, students can take ¼ cup of broccoli and ¼ cup of carrots; and
- fruits and a vegetables to reach a ½-cup serving, for example, students can take ¼ cup of tomatoes and ¼ cup of strawberries.

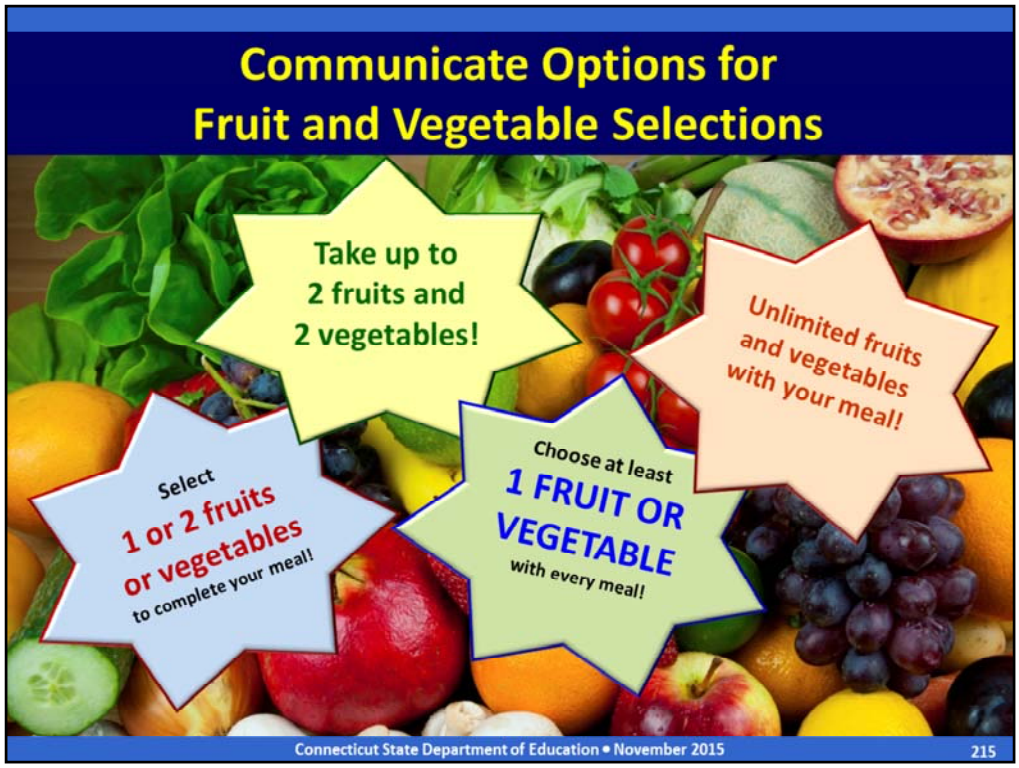
However, keep in mind that the easiest strategy to help students select at least ½ cup for the OVS requirement is to **offer all fruits and vegetables in ½-cup servings**.

Dried fruit and raw leafy greens count toward the required ½-cup serving of fruits and vegetables for OVS based on their crediting volume.

**Ask participants:**

- What is the crediting volume for dried fruits? Since dried fruit credits as twice the volume served, ¼ cup of dried fruit counts as ½ cup of fruit for OVS.
- What is the crediting volume for raw leafy greens? Since raw leafy greens credit as half the volume served, 1 cup of raw leafy greens such as romaine lettuce and spinach

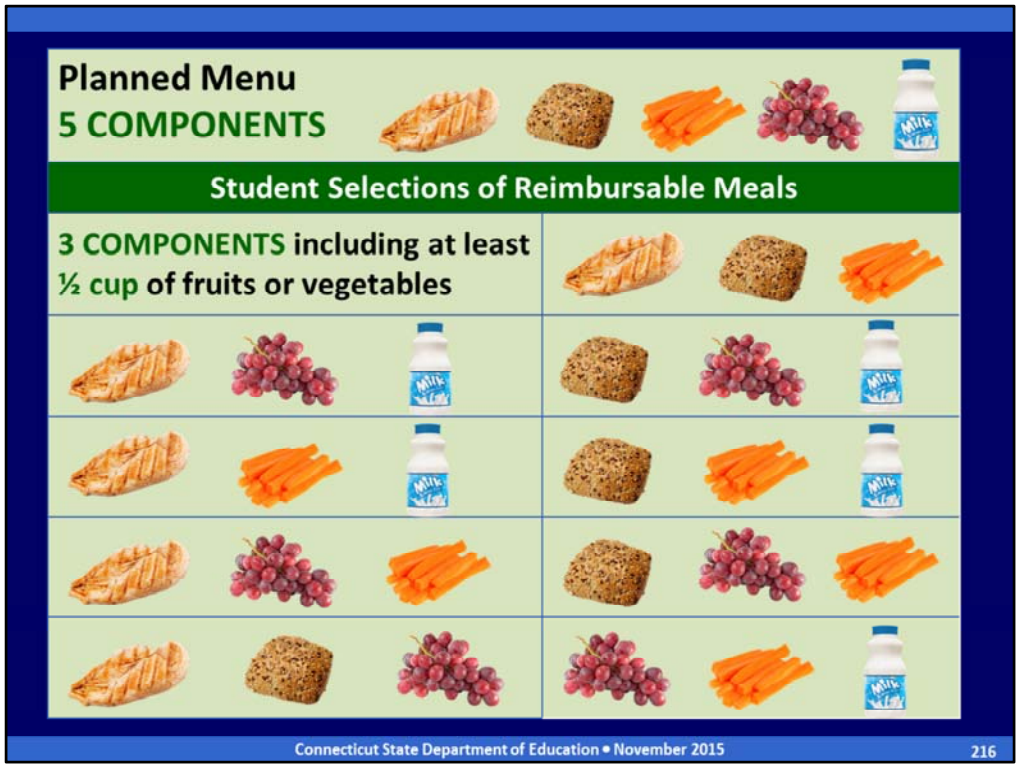
counts as ½ cup of vegetables for OVS.




The USDA requires schools to provide signage throughout serving line to guide students as they make their selections. When you offer multiple sections of fruits and vegetables, it is important that you communicate the number of servings that students are allowed to take.

For example, at the high school level, schools might allow students to choose two ½-cup servings from the fruits component and two ½-cup servings from the vegetables component. Signage must communicate this information so that students know they can take either one or two servings from each component.

Remember that if schools have multiple serving lines, all vegetable subgroups must be on all serving lines or easily accessible to students from all servings lines.




This slide shows an example of a menu that offers all five lunch components in the minimum required portion sizes. The menu includes grilled chicken breast, whole-grain roll, carrot sticks, red grapes and milk.

Below the menu, the slide shows all possible selections that result in a reimbursable meal when a student chooses to decline two food components. Notice that every meal selection includes three components, including the required serving of fruits or vegetables (at least ½ cup).

Of course, students could also choose (and should be encouraged) to take four components or all five components for a reimbursable meal.

**Ask participants:** Do any of these combinations surprise you?

Note that the grapes, carrot sticks and milk are a reimbursable meal, even though there is no meat/meat alternate. Student are not required to take any component except for at least ½ cup of fruit or vegetables.

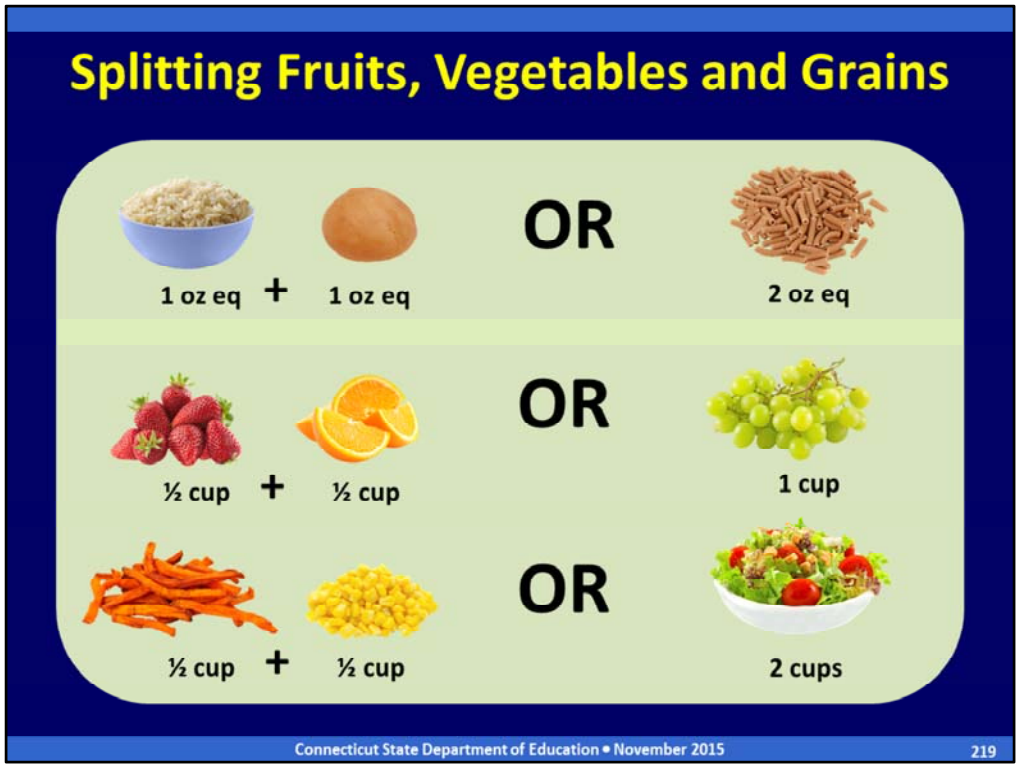

Before we talk about OVS, we need to understand how menu planning decisions affect the allowable selections for a reimbursable lunch.


The menu planner determines **how** to offer the food items. This determines how food items credit toward a students required selections for OVS.

Menu planners should carefully consider the serving sizes of food items and plan menus so that it is easy for students to select and food service staff to identify reimbursable meals under OVS.

Consistency is important to help minimize confusion among students and staff.

**Ask Participants:** How many menu planners are here today? What menu planning strategies do you use to help implement OVS in your schools?




Menus planners may choose to offer the fruits, vegetables and grains components as two or more food items. These menu planning decisions affect students' selection of reimbursable lunches. For example, for all grades, the menu planner could offer:

- 1 ounce equivalent of brown rice and a 1 ounce equivalent whole-grain roll or 2 ounce equivalents of whole-grain pasta (this amount exceeds the minimum daily 1 ounce equivalent of grains for grades K-5 and 6-8 and meets the minimum daily minimum daily 2 ounce equivalents for grades 9-12);
- ½ cup of strawberries and ½ cup of oranges or 1 cup of grapes (this amount exceeds the minimum daily ½ cup of fruits for grades K-5 and 6-8 and meets the minimum daily 1 cup for grades 9-12); and
- ½ cup of sweet potato fries and ½ cup of corn or 2 cups of salad (remember that leafy greens credit as half the volume served). This amount exceeds the minimum daily ¾ cup of vegetables for grades K-5 and 6-8 and meets the minimum daily 1 cup for grades 9-12.

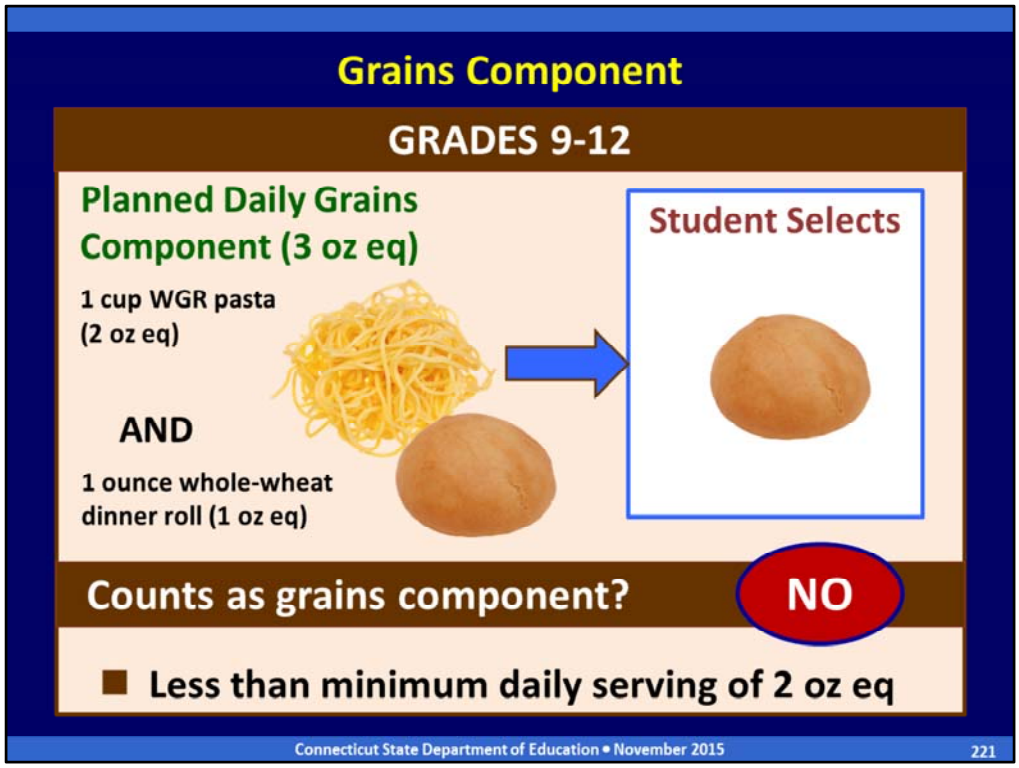
When splitting food components, each food item must meet the minimum creditable serving size (¼ ounce equivalent for grains and ⅛ cup for vegetables and fruits) and the combined total amount of all items from the same component must meet the **minimum daily serving size** for that component. For example, the minimum daily grains requirement for grade 9-12 is 2 ounce equivalents, so the combined total of all grains items offered as part of the reimbursable meal must be 2 ounce equivalents, e.g., ½ cup of brown rice (1 ounce equivalent) and a 1-ounce whole-grain roll (1 ounce equivalent).


To count as a food component under OVS, students must take **at least the daily minimum** required by the meal pattern, except for the fruits and vegetables component. Students must take at least ½ cup of fruits or vegetables.

If students select less than the offered portion of meat/meat alternate or grains, it **cannot** count as a component at lunch.

Since milk is typically offered in ½ pint (8 fluid ounces) portions, students do not have an option to take less than the full component – they either chose to take the full component or not take it at all.

If milk were offered in portion sizes less than 1 cup (8 fluid ounces), such as a smoothie made with 4 fluid ounces (½ cup) of milk, the same restrictions apply. The milk in the smoothie would not count as one component because it is less than the full required serving size of 1 cup.

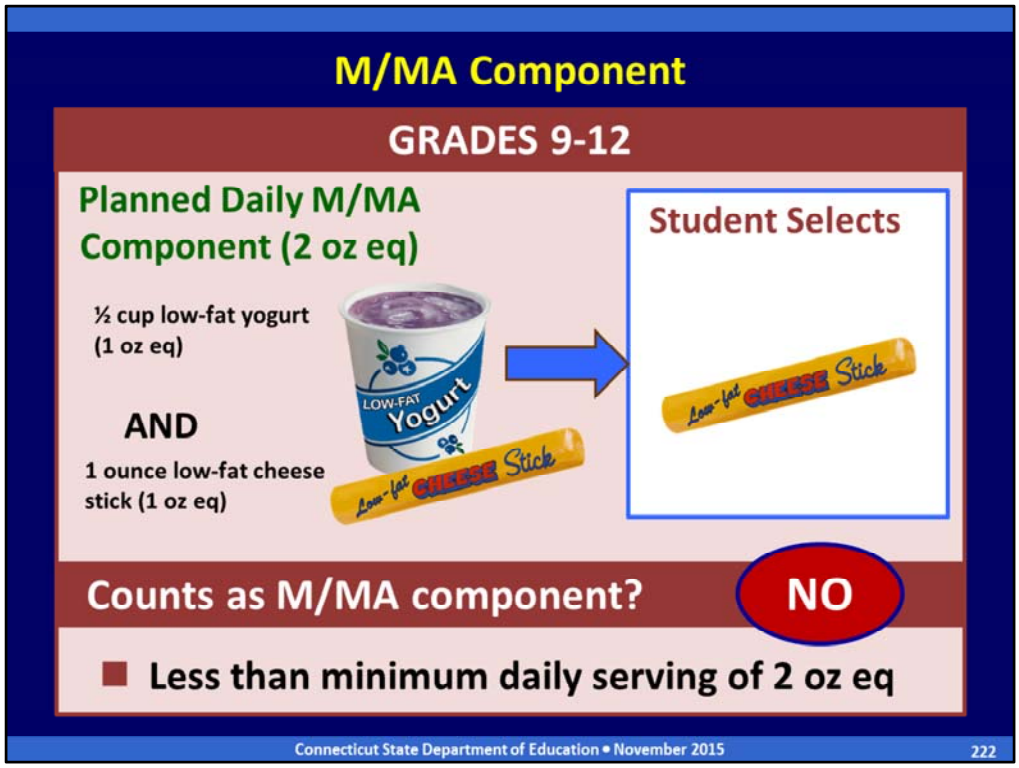



The student selects only the roll.

**Ask participants:** Does this count as the minimum serving of the grains component for grades 9-12 under OVS?

No. The minimum daily grains requirement for grades 9-12 is 2 ounce equivalents. The roll provides only 1 ounce equivalent (less than the minimum). To make a reimbursable meal, the student must also select the minimum serving size of at least two other components and at least ½ cup of fruits or vegetables.

**INSTRUCTOR NOTES:** First click brings in the student selection of dinner roll. Second click brings in the answer.



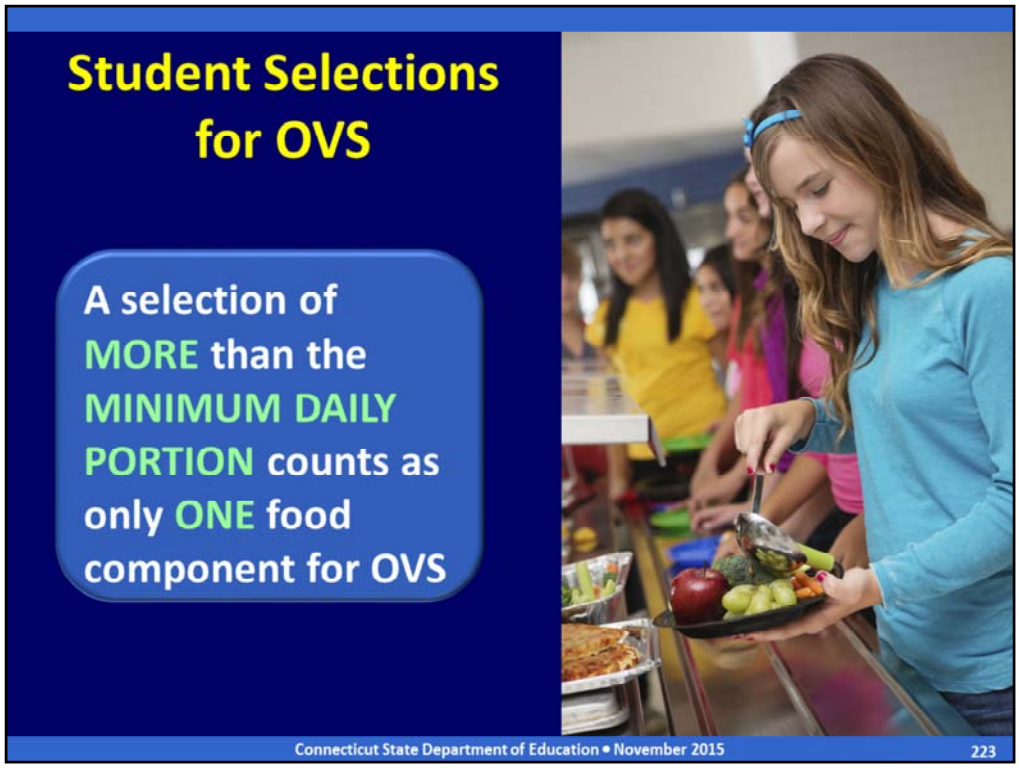

The student selects only the cheese stick.

**Ask participants:** Does this count as the minimum serving of the meat/meat alternates component for grades 9-12 under OVS?

No. The minimum daily meat/meat alternates requirement for grades 9-12 is 2 ounce equivalents. The cheese stick provides only 1 ounce equivalent (less than the minimum). To make a reimbursable meal, the student must also select the minimum serving size of at least two other components and at least ½ cup of fruits or vegetables.

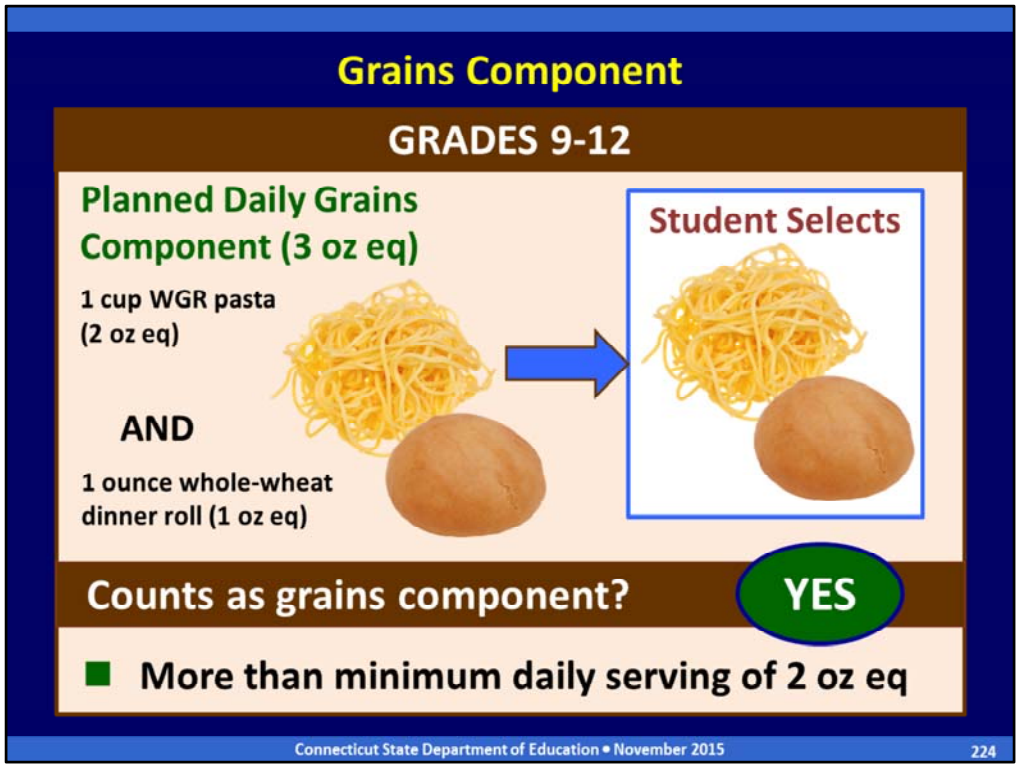
Since the minimum daily meat/meat alternates requirement for grades 9-12 is 2 ounce equivalents, students must take both the yogurt (1 ounce equivalent) and cheese stick (1 ounce equivalent) to count as the meat/meat alternates component under OVS.

**INSTRUCTOR NOTES:** First click brings in the student selection of the cheese stick . Second click brings in the answer.




Students may select more than the minimum daily portion but it counts as only one food component for OVS.

For example, a menu might include **½ cup of spaghetti** (1 ounce equivalent of grains) and **2 ounces of garlic bread** (2 ounce equivalents of grains). If the student takes both food items, the student has selected 3 ounce equivalents of grains. However, this counts as only one component (grains) for OVS.




This slide shows an example of how a menu with two items from the grains component affects the selection of reimbursable meals under OVS for grades 9-12.

The menu planner offers a lunch that includes 3 ounce equivalents of grains from 1 cup of pasta (2 ounce equivalents) and a 1-ounce whole-wheat roll (1 ounce equivalent).

The student selects the pasta and roll.

**Ask participants:** Does this count as the minimum serving of the grains component for grades 9-12 under OVS?

Yes. The minimum daily grains requirement for grades 9-12 is 2 ounce equivalents. The pasta and roll together provide 3 ounce equivalents. To make a reimbursable meal, the student must also select the minimum serving size of at least one other component and at least ½ cup of fruits or vegetables.

**INSTRUCTOR NOTES:** First click brings in the student selection of the pasta and dinner roll. Second click brings in the answer.


With OVS, you can see how important it is to communicate information to students about the menu choices and what they are allowed to select for a reimbursable meal.

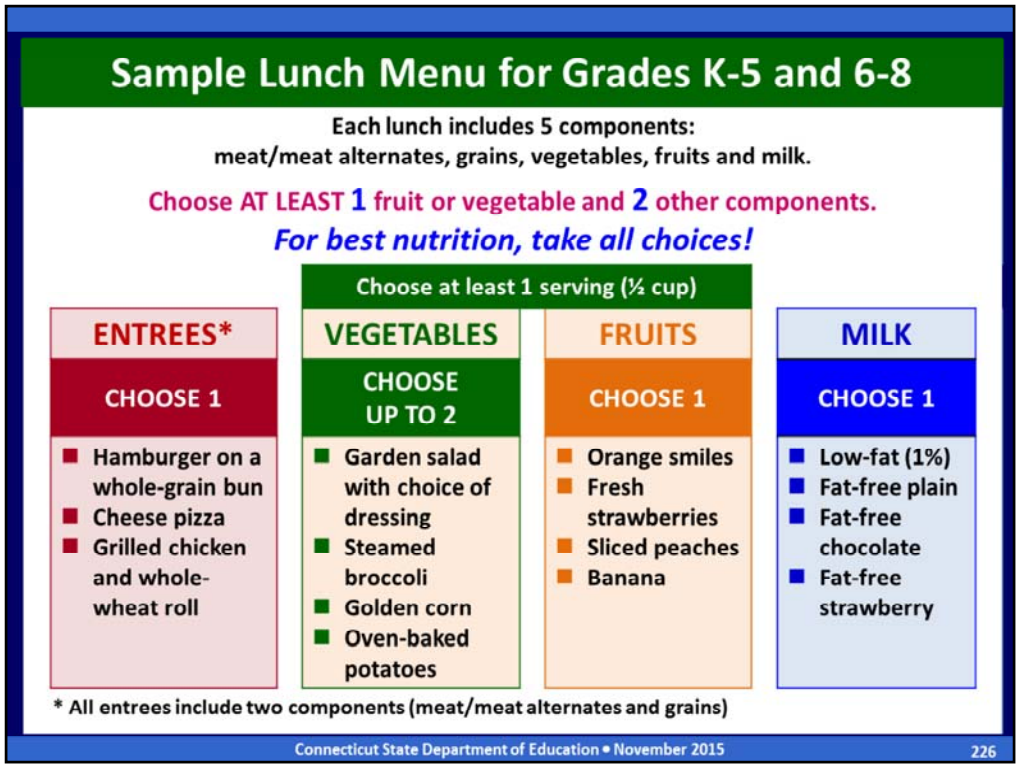
The USDA requires schools identify the foods that are part of the reimbursable meal near or at the beginning of all serving lines. If schools offer **choices** of food items within the components, the menu must indicate what choices or combination of choices are available each day and what students may select. These requirements apply to all schools, including those that implement family-style meal service. In this case, you may consider options like table tents or posters.

Schools have discretion as to how to identify the foods that are part of the reimbursable meal depending on their menu, facilities, layout, age of children and other considerations. Some examples include posters, signs and static clings on sneeze guards.

This requirement is to ensure that students understand the components of the reimbursable meal and do not make unintentional purchases of a la carte foods. This signage is also very important when schools implement offer versus serve.

**Ask Participants:** What signage strategies do you use to help implement OVS in your schools?

*Photo from Pleasant Valley Elementary School in South Windsor.*




School menus must also clearly communicate the daily menu choices and what students are allowed to select for a reimbursable lunch.

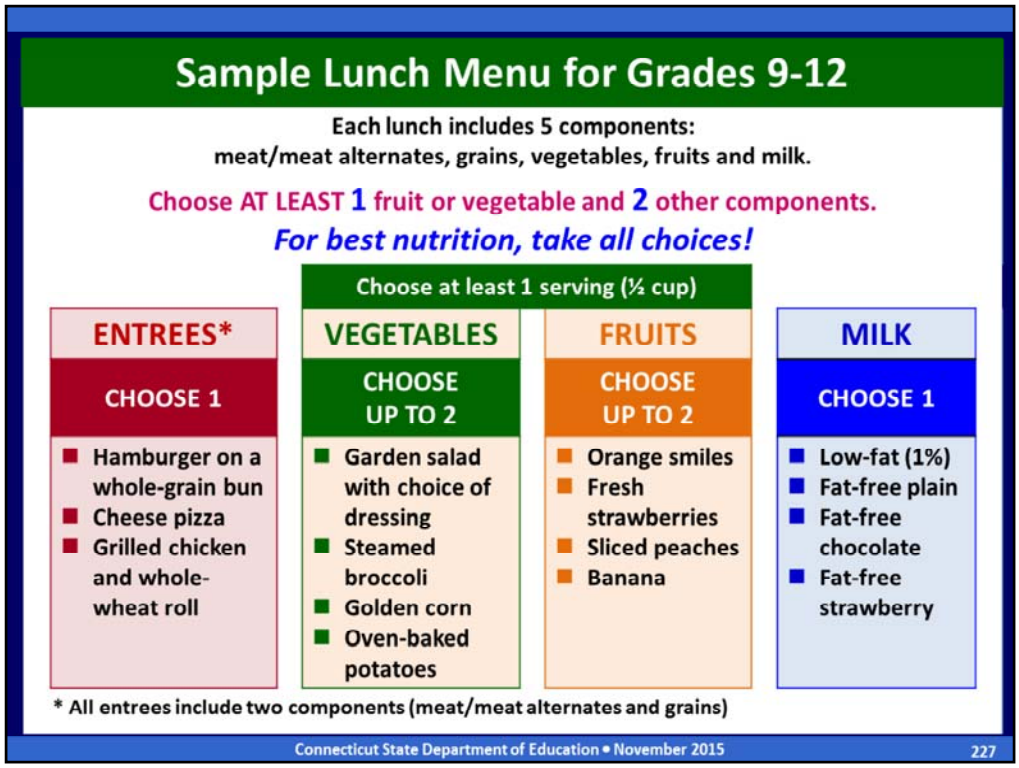
This sample lunch menu for grades K-5 and 6-8 allows students to select one choice from the meat/meat alternates, grains, fruits and milk components and two choices from the vegetables component.

The menu planner chooses to offer vegetables in ½-cup servings and allows students to select up to two servings. Portioning vegetables in ½-cup servings makes it easier for students to meet the OVS requirement to select at least ½ cup of fruits or vegetables.

This menu provides ¼ cup more vegetables than the minimum daily required ¾-cup serving for grades K-5 and 6-8. Lunches can include additional servings of any meal pattern component as long as the weekly menu meets the calorie limit and dietary specifications.

This menu clearly communicates that students are allowed to select all choices but must select at least one serving (½ cup) of fruits or vegetables and two other components.

Students can select two different vegetables or two servings of the same vegetable because the menu is planned to allow any two choices from the vegetables component.




This sample lunch menu for grades 9-12 allows students to select one choice from the milk, grains and meat/meat alternates components, two choices from the vegetables component and two choices from the fruits component.

The menu planner chooses to offer both fruits and vegetables in ½-cup servings to make it easier for students to meet the OVS requirement to select at least ½ cup of fruits or vegetables.

This menu clearly communicates that students are allowed to select all choices but must select at least one serving (½ cup) of fruits or vegetables and two other components.

Students could select two different fruits or two servings of the same fruit and two different vegetables or two servings of the same vegetable.


Here is an example of some signs you can put on the serving line that explain what students can take for a reimbursable meal under OVS. These are available online and from the CSDE.


In addition to posting the content of reimbursable meals, it is very important that schools provide adequate training for school food service staff on the meal pattern components, including how to count food items and recognize reimbursable meals under OVS. This continues to be a critical part of implementing OVS.


Now we're going to test your skill at identifying reimbursable meals under OVS. Let's play Meal or No Meal! Take out worksheet 6 – Meal or No Meal.

As a group, we will review some planned lunch menus and various student selections to see if the student choices are reimbursable meals. You will see several lunch menus that are all planned to meet the meal pattern requirements. There are no tricks here – each menu includes all required components in the minimum required serving sizes for lunch.

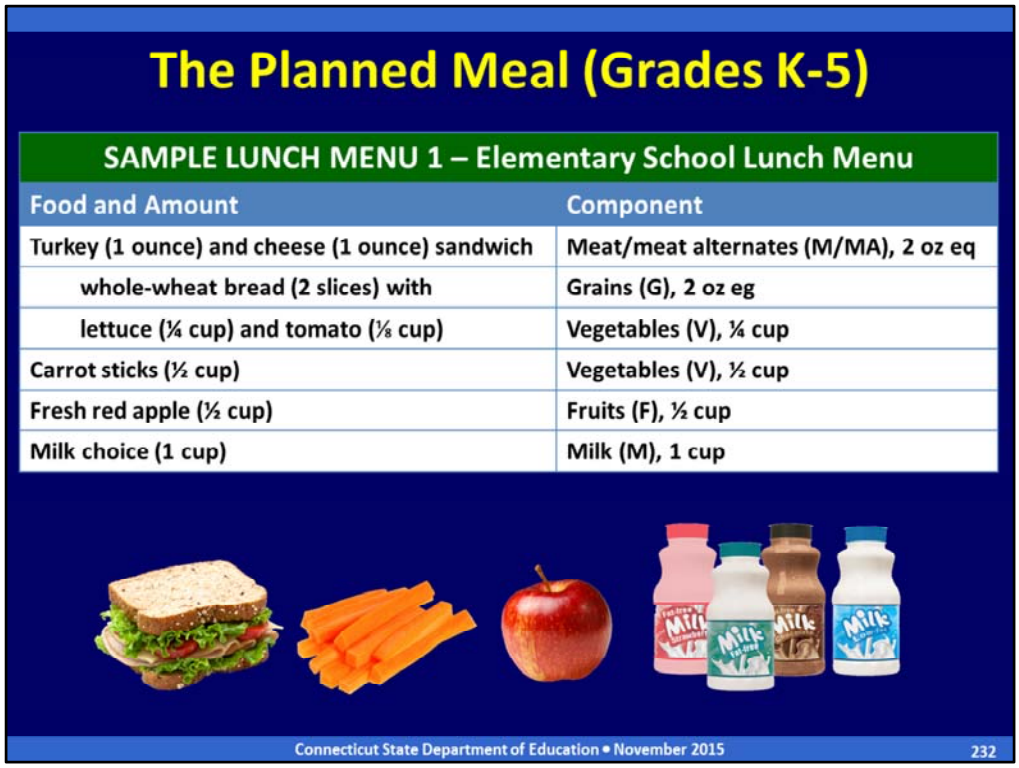
For each of the lunch selections, you need to indicate "meal" or "no meal."

Note that for this activity, we are only looking at the **DAILY** requirements and are not concerned with the weekly requirements such as the vegetable subgroups.

**INSTRUCTOR NOTES:**

- Do this activity all together as one group, asking for show of hands for "meal" or "no meal." Click to bring in answer on the slide.
- Tell participants that they just have a few seconds to decide the answer, just as cashiers do when students come through the lunch line.

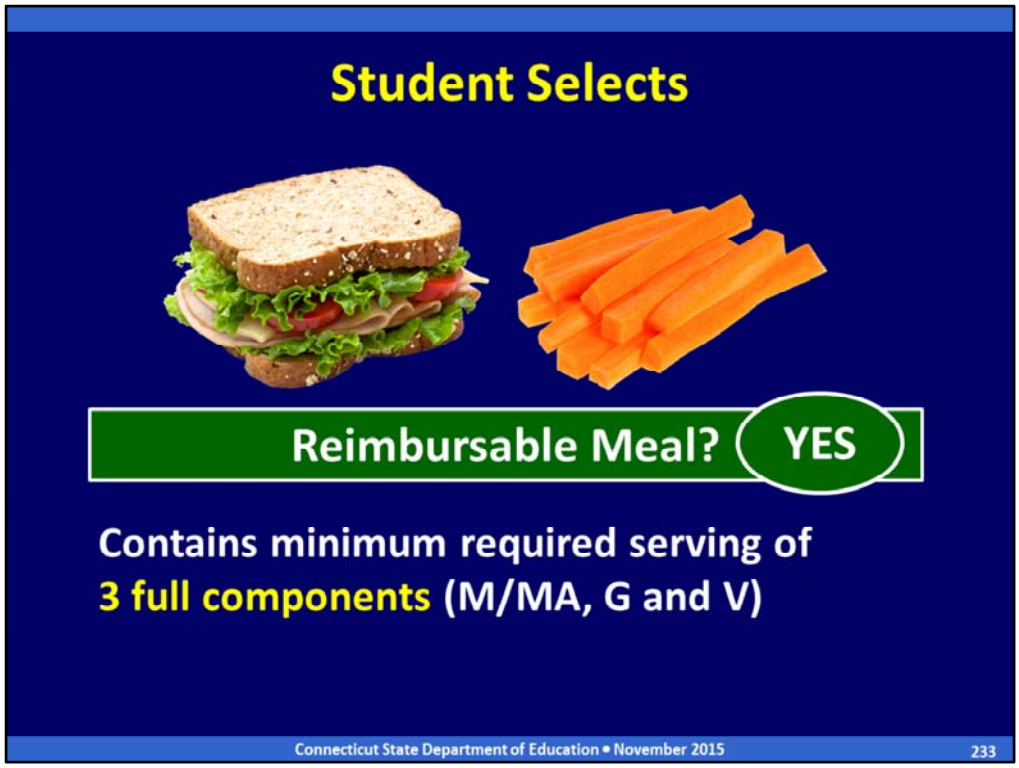

You are the cashier in an elementary schools and your job is to determine whether the student's choices make a reimbursable meal.




This menu is planned to include all **five** food components in the appropriate portion sizes for grades K-5:

- Turkey and cheese sandwich (M/MA component) on whole-wheat bread (grains component) with lettuce (¼ cup) and tomato (⅛ cup) for a combined ¼ cup of vegetables component (remember that lettuce counts as **half** the volume served, so ¼ cup credits as ⅛ cup);
- Carrot sticks (½ cup of vegetables component);
- Fresh red apple (fruits component); and
- Choice of 1 cup of low-fat (1%) milk, fat-free milk or fat-free flavored milk to meet the milk component.

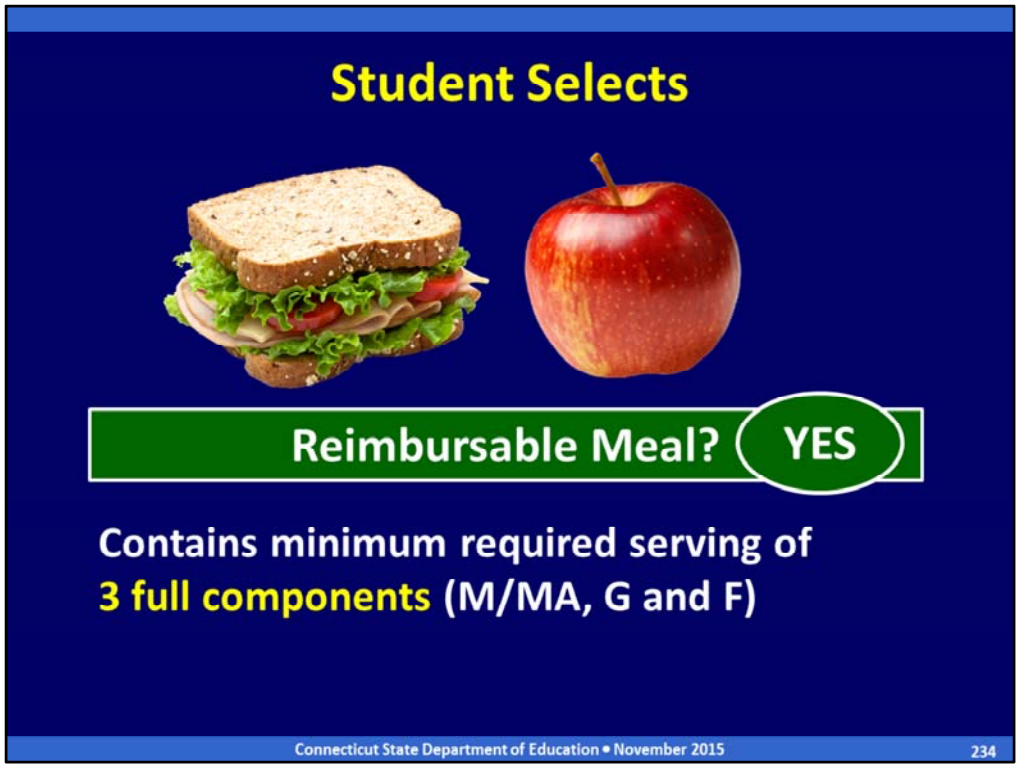
**INSTRUCTOR NOTES:**
The Food Buying Guide indicates that one apple (125-138 count) is 1 cup of fruit. However, for the purposes of this activity, assume that the serving size of the apple is ½ cup only.




The student selects the turkey sandwich and carrot sticks. Is this a reimbursable meal?

Yes. This meal contains the minimum required serving of three full components: meat/meat alternates (turkey and cheese), grains (bread) and vegetables (lettuce and tomato and carrots).

The lettuce and tomato (¼ cup) and carrot sticks (½ cup) together are ¾ cup of vegetables, so the meal includes at least ½ cup of fruits or vegetables.

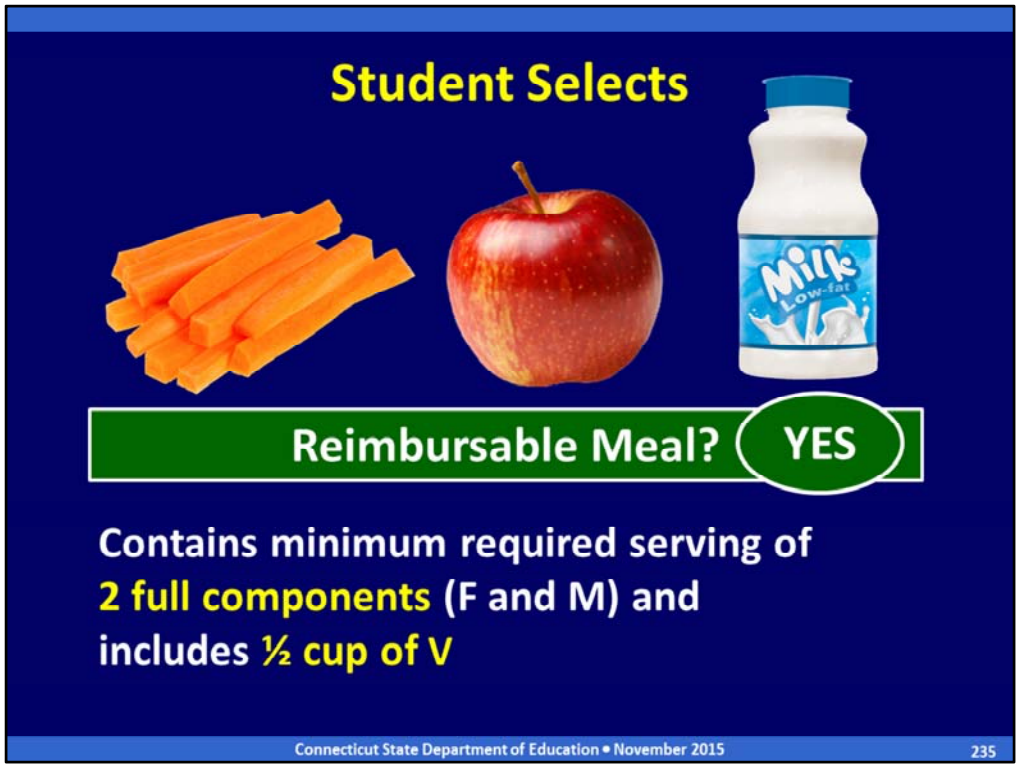



The student selects the turkey sandwich and apple. Is this a reimbursable meal?

Yes. This meal contains the minimum required serving of three full components: meat/meat alternates (turkey and cheese), grains (bread) and fruit (apple).

The apple provides ½ cup of fruit so the meal meets the requirement for at least ½ cup of fruits or vegetables.

The vegetables (lettuce and tomato in sandwich) are only ¼ cup so they do not count as a full component for OVS.

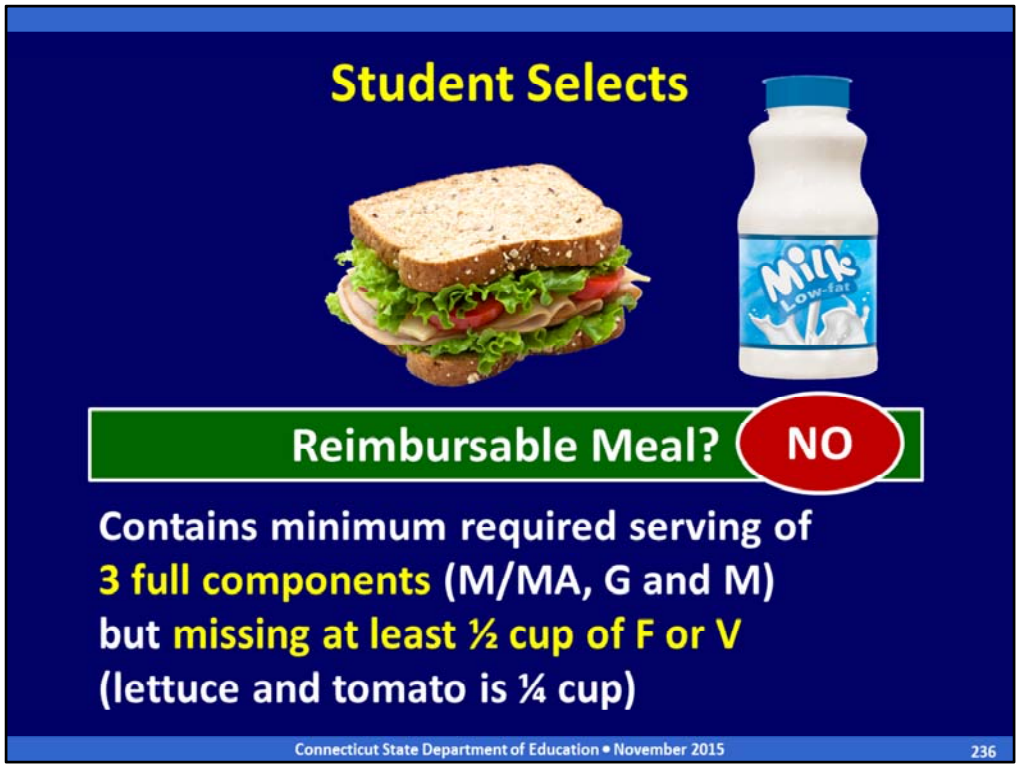



The student selects the carrot sticks, apple and milk. Is this a reimbursable meal?

Yes. The meal contains the minimum required serving of two full components: fruits (apple) and milk (milk), and provide ½ cup of vegetables (carrot sticks).

The apple meets the minimum daily serving requirement of ½ cup so it counts as one component.

The carrot sticks (½ cup) are less than the full required serving of ¾ cup of vegetables so they do not count as a full component. However, they meet the OVS requirement for at least ½ cup of fruit or vegetable.




The student selects the turkey sandwich and milk. Is this a reimbursable meal?

No. The selected meal contains the minimum required serving of three full components: meat/meat alternates (turkey and cheese); grains (bread) and milk, but is missing at least ½ cup of fruits or vegetables.

The lettuce and tomato together provide only ¼ cup of vegetables.


Now you are the cashier in a middle school. Your job is to determine whether the student's choices make a reimbursable meal.

## The Planned Meal (Grades 6-8)

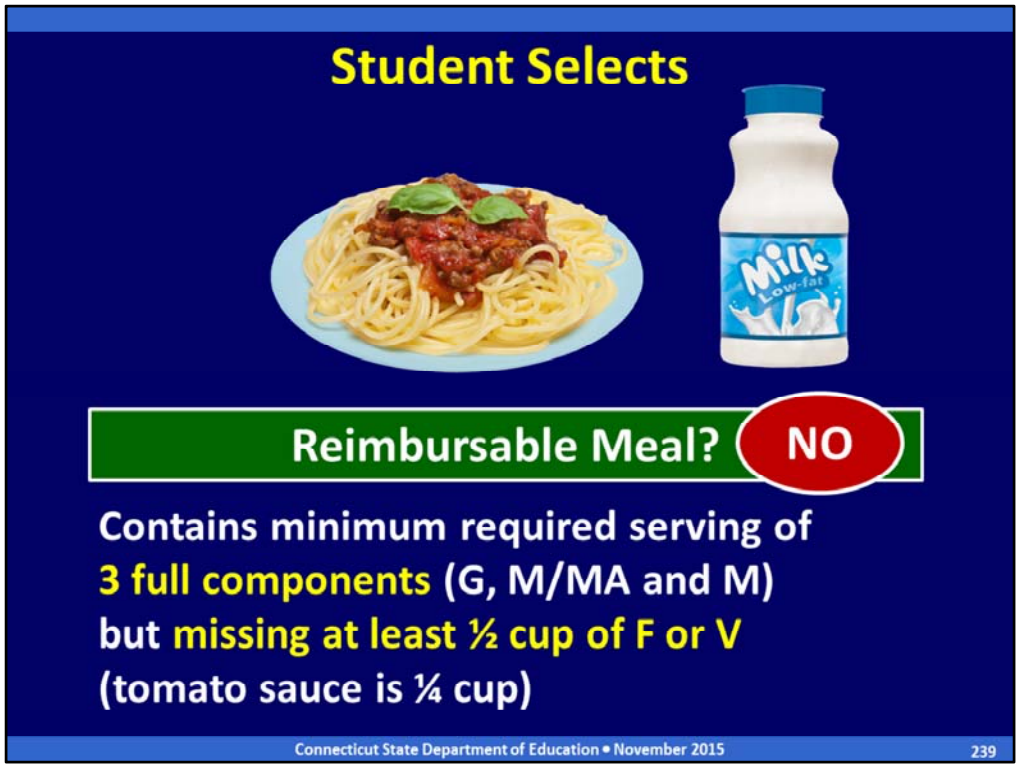
**SAMPLE LUNCH MENU 2 – Middle School Lunch Menu**

| Food and Amount | Component |
|---|---|
| WGR pasta (½ cup) with | G, 1 oz eg |
| meat sauce (with 1 ½ ounces cooked meat) and ¼ cup tomato sauce | M/MA, 1 ½ oz eq<br>V ¼ cup |
| Whole-grain roll, 1 ounce | G, 1 oz eg |
| Romaine garden salad (1 ½ cups) * | V, ¾ cup **Leafy greens credit as half of volume served* |
| Fresh fruit cup (½ cup) | F, ½ cup |
| Milk choice (1 cup) | M, 1 cup |

Connecticut State Department of Education • November 2015 238

This menu is planned to include all **five** food components in the appropriate portion sizes for grades 6-8:

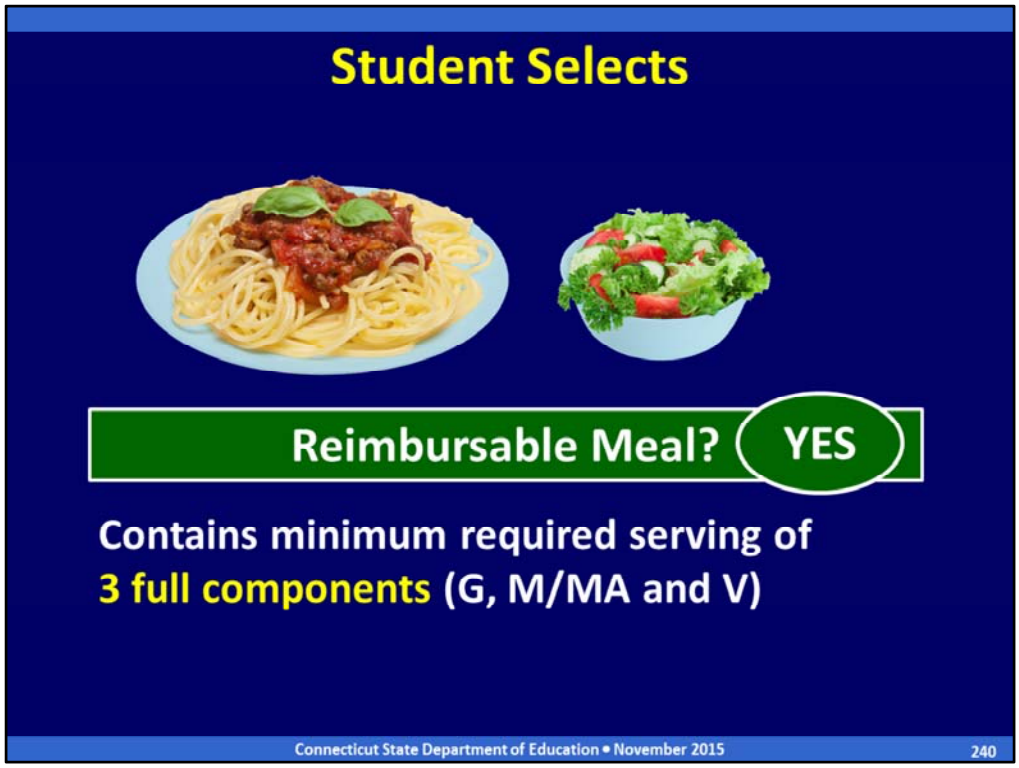
- ½ cup (1 ounce equivalent) of pasta and a 1-ounce whole-grain roll (1 ounce equivalent) provide the grains component (2 ounce equivalents);
- 1 ½ ounces of meat in the meat sauce (1 ½ ounce equivalents) provides the M/MA component;
- 1 ½ cups of romaine salad provide the required ¾ cup of the vegetables component (remember that raw leafy greens count as HALF the volume served);
- ½ cup of fresh fruit cup provides the fruits component; and
- A choice of 1 cup of low-fat (1%) milk, fat-free milk or fat-free flavored milk to meet the milk component.




The student selects the pasta with meat sauce and milk. Is this a reimbursable meal?

No. The meal contains the minimum required serving of three full components (grains, M/MA and milk) but is missing at least ½ cup of fruits or vegetables. The tomato sauce is only ¼ cup so it cannot count as ½ cup of vegetables.

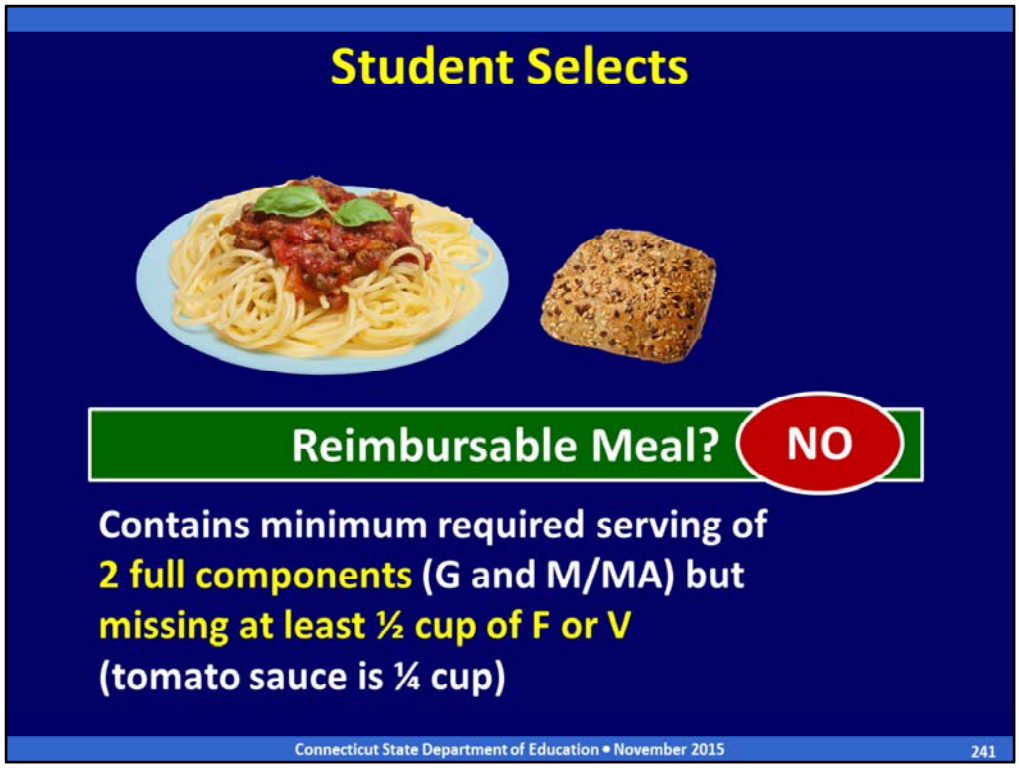
If the tomato sauce was ½ cup instead of ¼ cup, this would be a reimbursable meal.




The student selects the pasta with meat sauce and salad. Is this a reimbursable meal?

Yes. The meal contains the minimum required serving of three full components (grains, M/MA and vegetables).

The vegetables component includes 1 cup total from ¼ cup of tomato sauce and 1 ½ cups of salad (which credits as ¾ cup vegetables). Remember that raw leafy greens count as **half** the volume served.

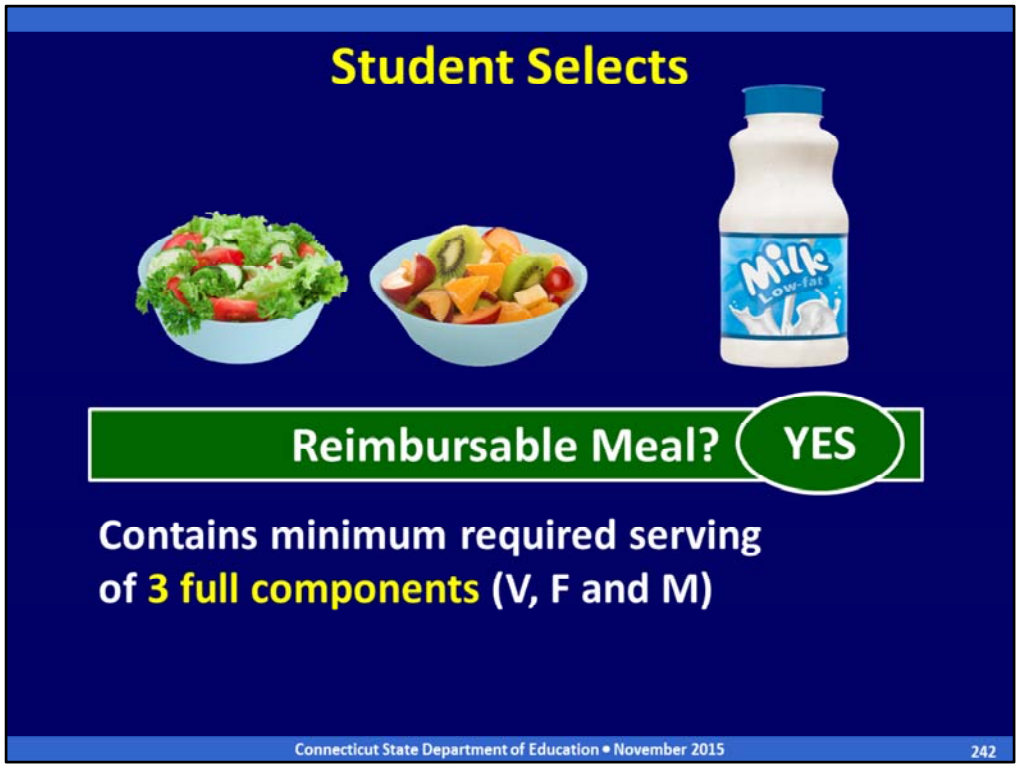



The student selects the pasta with meat sauce and whole-grain roll. Is this a reimbursable meal?

No. The meal contains the minimum required serving of two full components (grains and M/MA) but is missing at least ½ cup of fruits or vegetables. The tomato sauce is only ¼ cup so it cannot count as ½ cup of vegetables.

If the tomato sauce was ½ cup instead of ¼ cup, this would be a reimbursable meal.

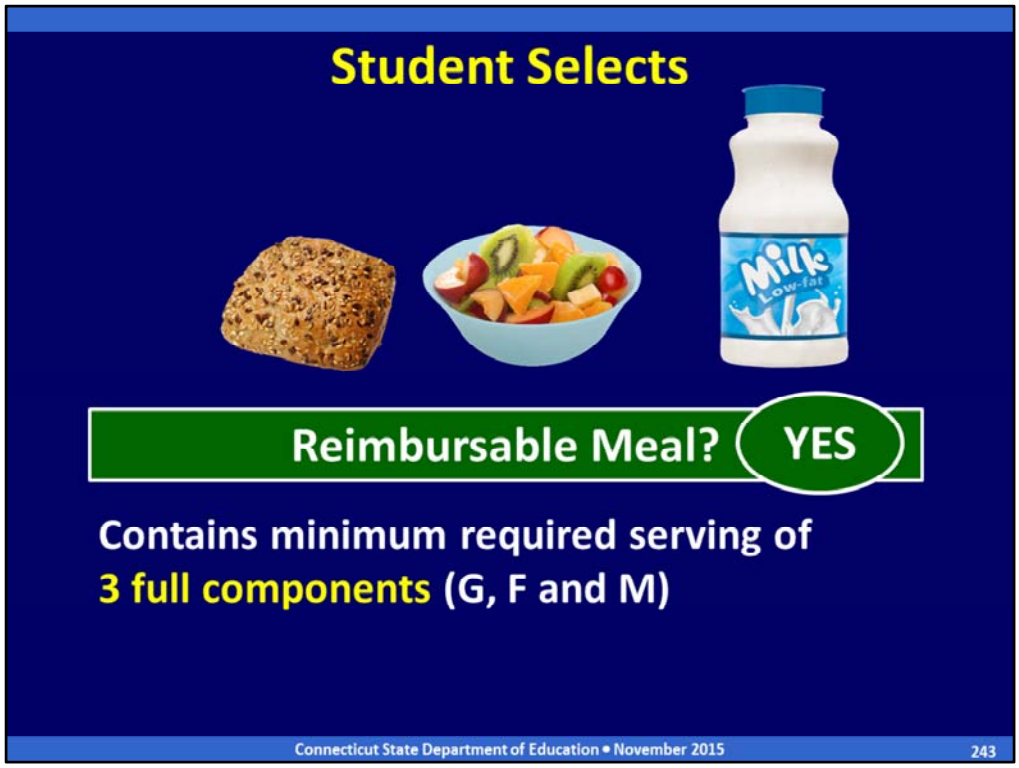
Remember that a student selection of more than one serving of grains (1 oz eq of pasta and 1 oz eq roll) counts as only one component (grains).




The student selects the salad, fruit cup and milk. Is this a reimbursable meal?

Yes. The meal contains the minimum required serving of three full components (vegetables, fruits and milk) and it includes ½ cup of fruits and ¾ cup of vegetables from the 1 ½ cups of salad. Remember that raw leafy greens count as **half** the volume served.

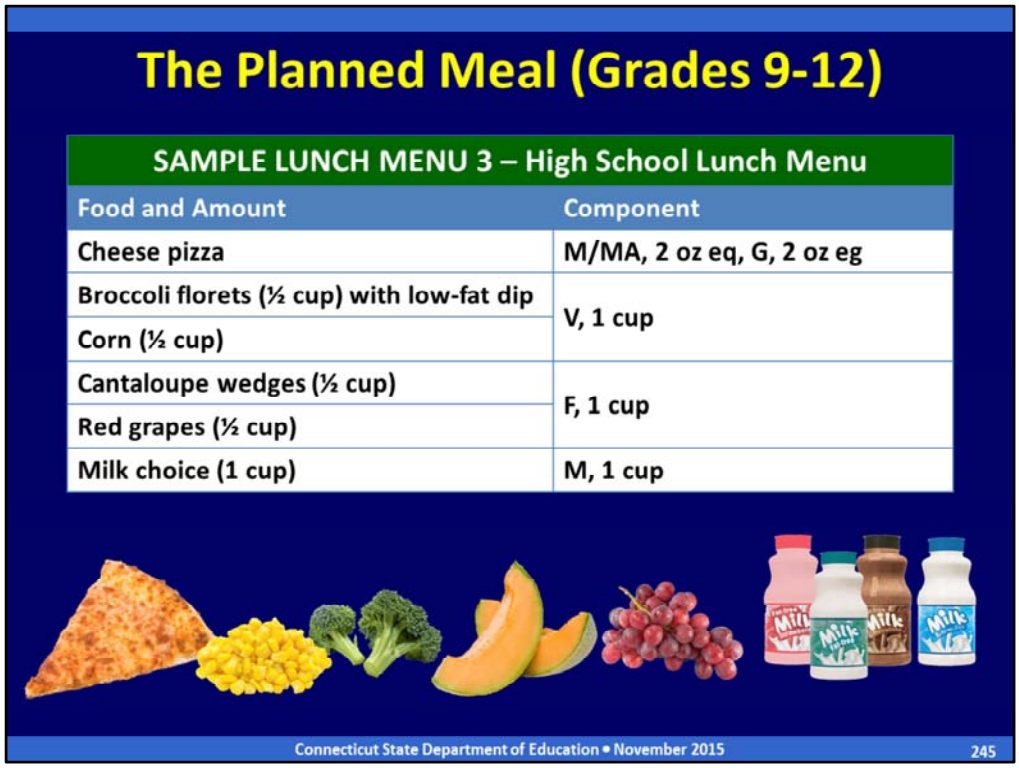
For grades 6-8, ½ cup of fruit is the full serving of the fruits component.




The student selects the whole-grain roll, fruit cup and milk. Is this a reimbursable meal?

Yes. The selected meal contains the minimum required serving of three full components (grains, fruits and milk). For grades 6-8, ½ cup of fruit is the full serving of the fruits component.

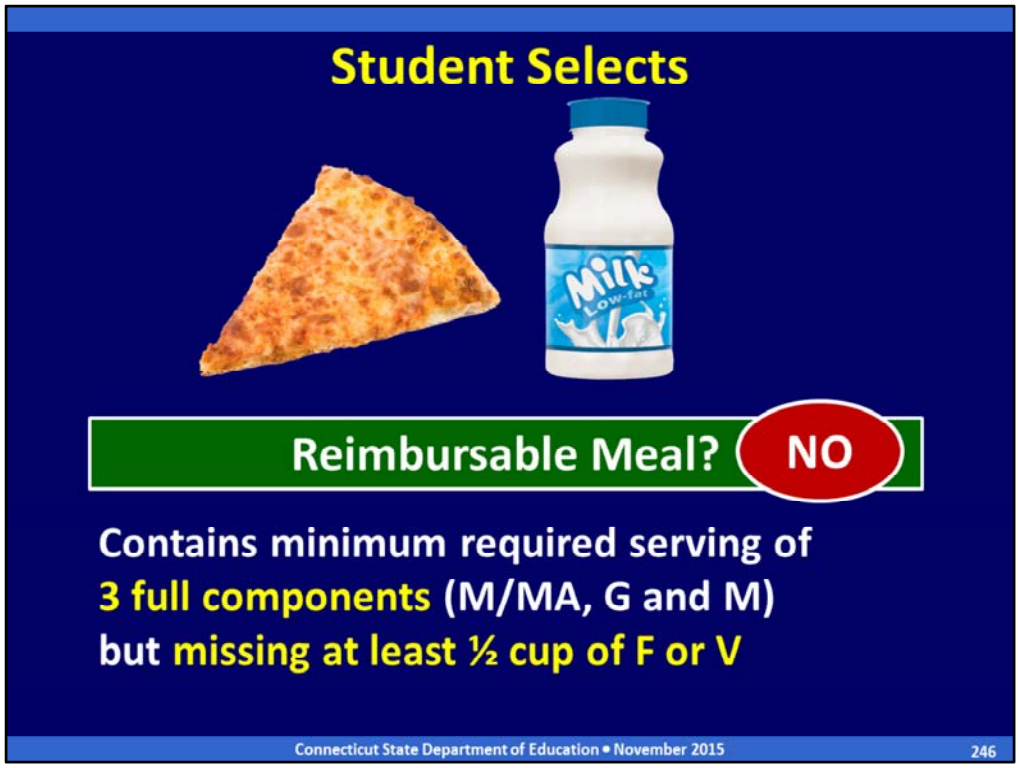

Now you are the cashier in a high school. Your job is to determine whether the student's choices make a reimbursable meal.




This menu is planned to include all **five** food components in the appropriate portion sizes for grades 9-12:

- the WGR pizza crust provides 2 ounce equivalents of grains;
- the pizza cheese provides 2 ounce equivalents of M/MA;
- ½ cup of broccoli and ½ cup of carrot sticks provide the required 1 cup of vegetables;
- ½ cup of cantaloupe and ½ cup of purple grapes provide the required 1 cup of fruits; and
- a choice of 1 cup of low-fat (1%) milk, fat-free milk or fat-free flavored milk to meet the milk component.

Note: For this example, we are assuming that the tomato sauce on the pizza is not sufficient to count toward the vegetables component. The tomato sauce could count if a school used CN labeled pizza indicating how the tomato sauce credits toward the vegetables component.



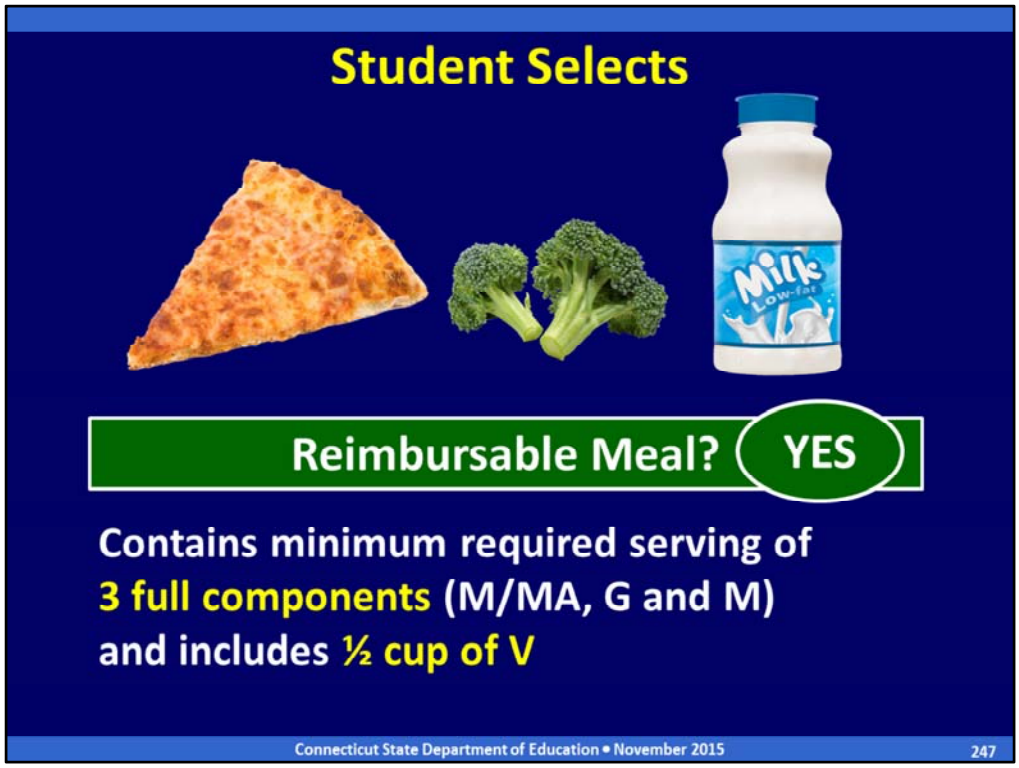

The student selects the pizza and milk. Is this a reimbursable meal?

No. The selected meal contains the minimum required serving of three full components:

- M/MA from the cheese in the pizza;
- grains from the pizza crust; and
- milk from the milk.

However, it is missing at least ½ cup of fruits or vegetables.

Note that a best practice strategy to help avoid nonreimbursable meals is to keep a variety of fruit and vegetables selections near the cashier. This allows students who are missing a fruit or vegetable to easily select either one, and make the meal reimbursable.

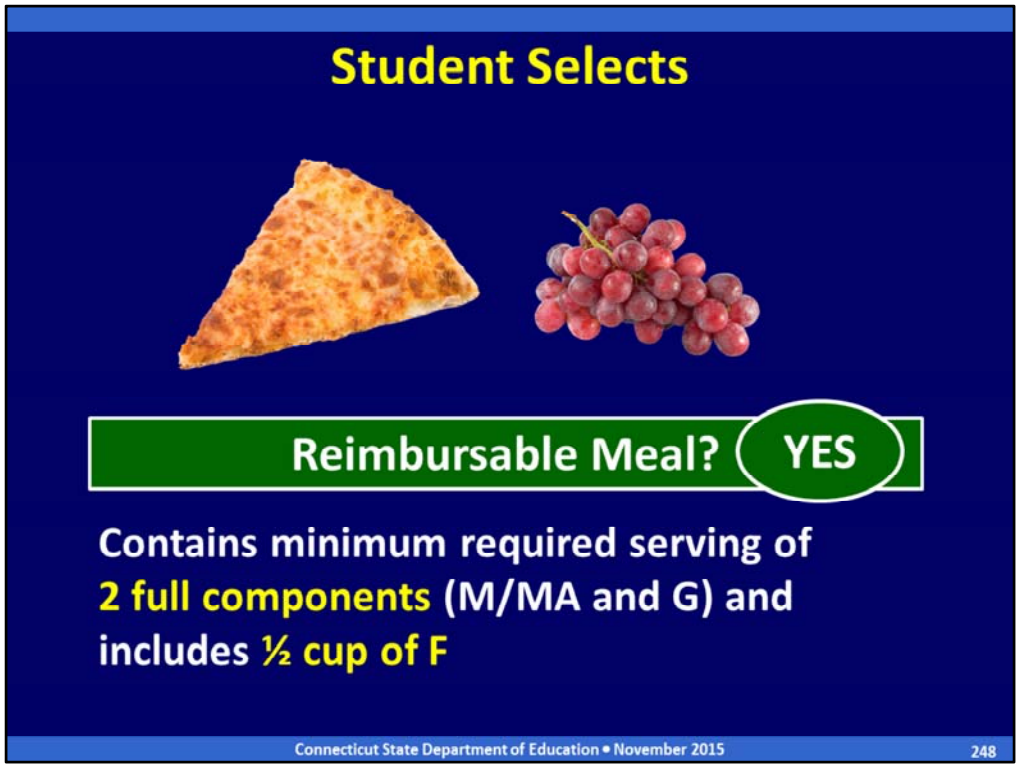



The student selects the pizza, broccoli and milk. Is this a reimbursable meal?

Yes. The selected meal contains the minimum required serving of three full components:

- M/MA from the cheese in the pizza;
- grains from the pizza crust; and
- milk from the milk.

It also contains ½ cup of vegetables (broccoli), which meets the requirement for at least ½ cup of fruits or vegetables.

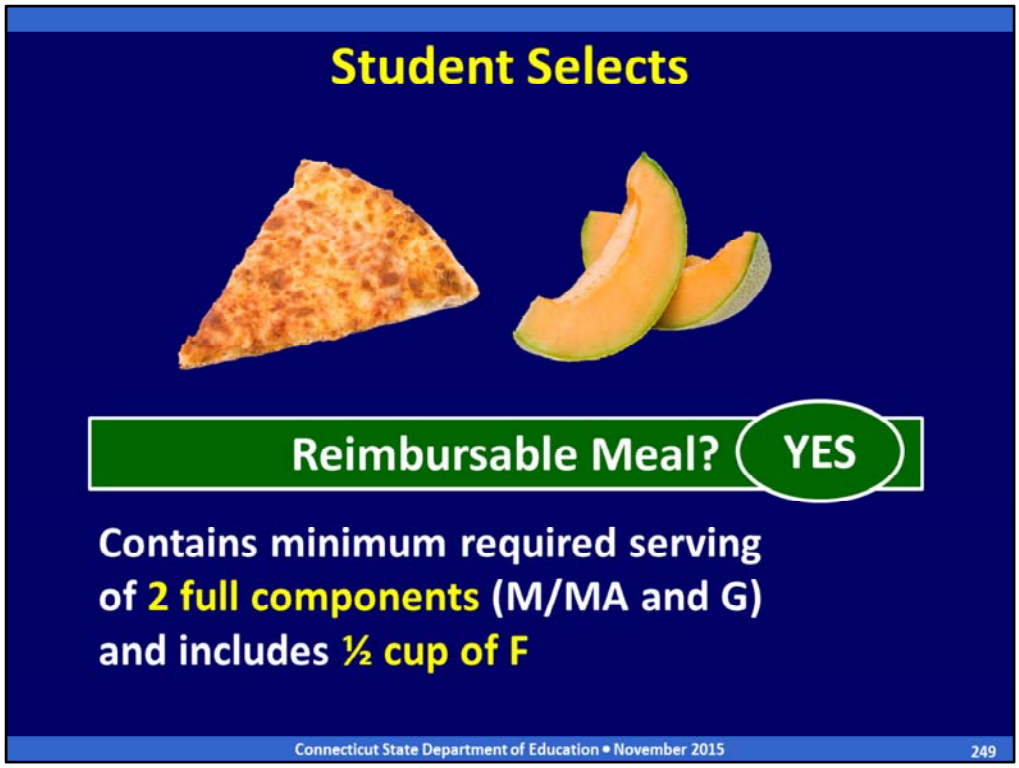



The selected meal contains the minimum required serving of two full components:

- M/MA from the cheese in the pizza; and
- grains from the pizza crust.

It also includes ½ cup of fruits (grapes).

Note: The ½ cup of grapes meets the OVS requirement for at least ½ cup of fruits or vegetables but it does not count as a full component, since the minimum serving size for grades 9-12 is 1 cup of fruit. Remember that this menu was planned to meet the daily required minimum of 1 cup of fruit from two foods: ½ cup of grapes and ½ cup of cantaloupe.

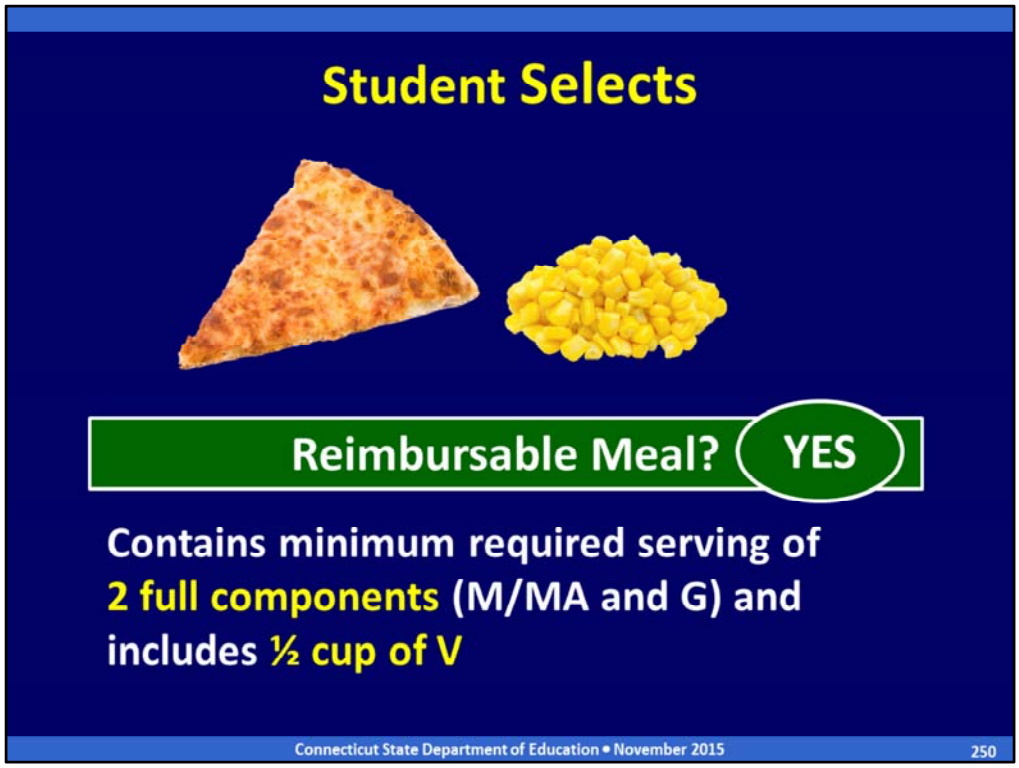



The selected meal contains the minimum required serving of two components:

- M/MA from the cheese in the pizza; and
- grains from the pizza crust.

It also includes ½ cup of fruits (cantaloupe).

Note: The ½ cup of cantaloupe meets the OVS requirement for at least ½ cup fruits or vegetables but it does not count as a full component, since the minimum serving size for grades 9-12 is 1 cup of fruit. Remember that this menu was planned to meet the daily required minimum 1 cup of fruit from two foods: ½ cup of grapes and ½ cup of cantaloupe.

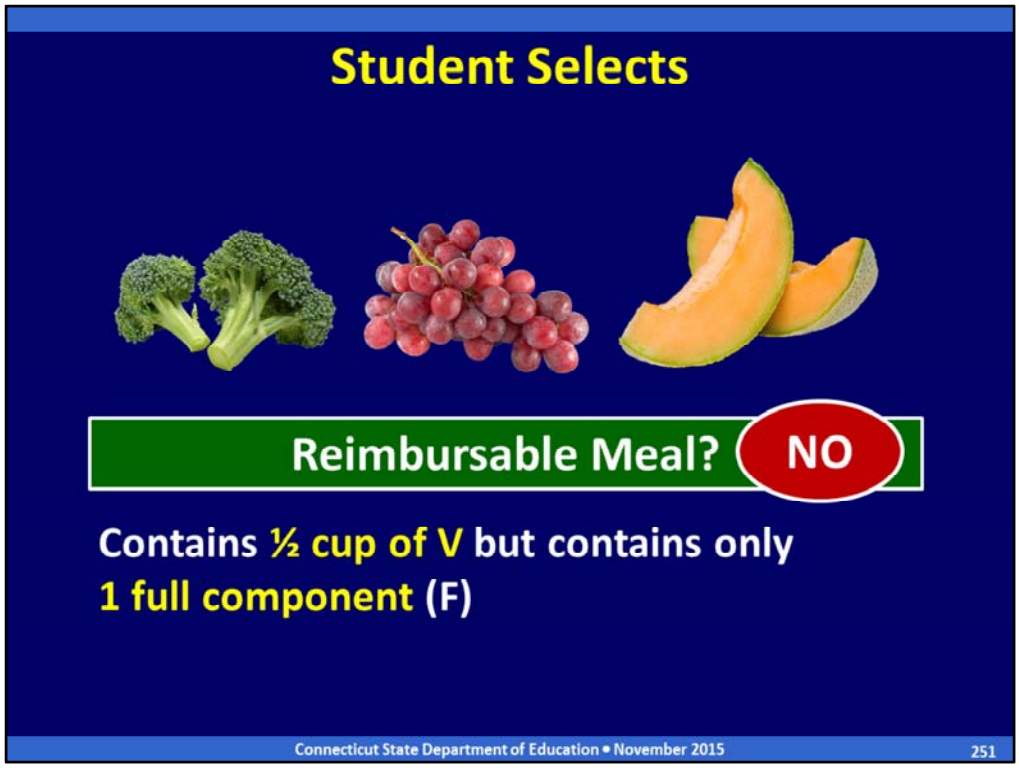



The student selects the pizza and carrots. Is this a reimbursable meal?

Yes. The selected meal contains the minimum required serving of three components:

- M/MA from the cheese in the pizza;
- grains from the pizza crust; and
- vegetables from the broccoli.

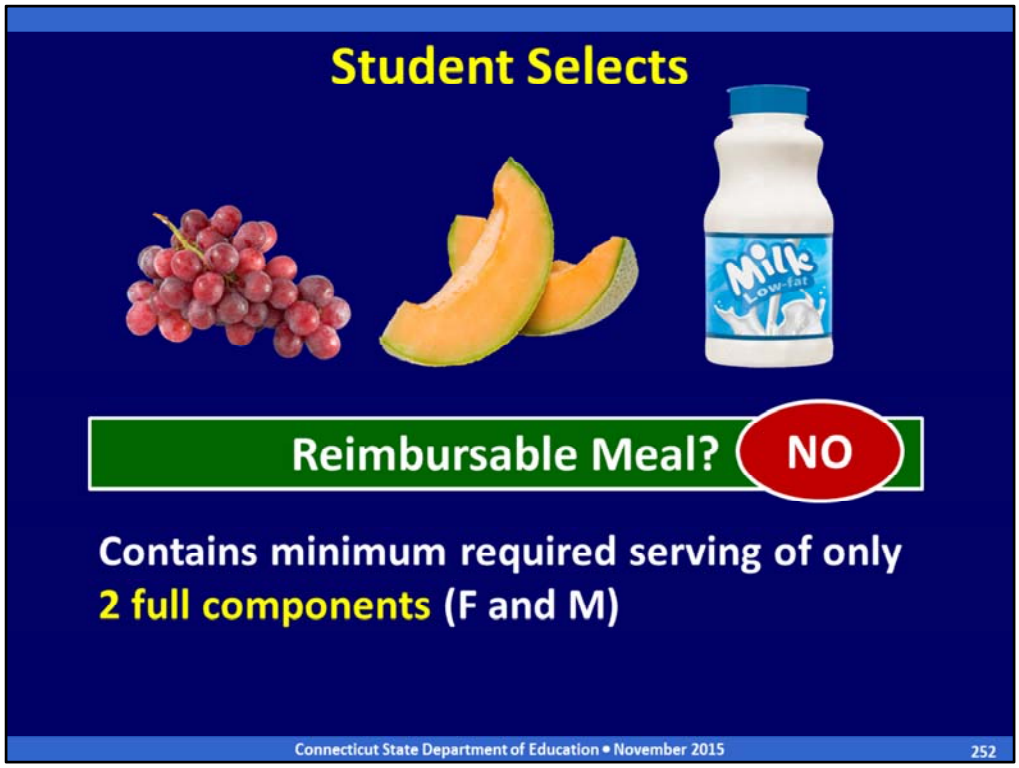
It also contains ½ cup of vegetables (carrots), which meets the requirement for at least ½ cup of fruits or vegetables.




The student selects the broccoli, grapes and cantaloupe. Is this a reimbursable meal?

No. While the selected meal contains three food items, it only contains the minimum required serving of only one component: fruits from the grapes and cantaloupe.

The grapes (½ cup) and cantaloupe (½ cup) **combined** provide the full required 1 cup of the fruits component, and therefore count as only one component.

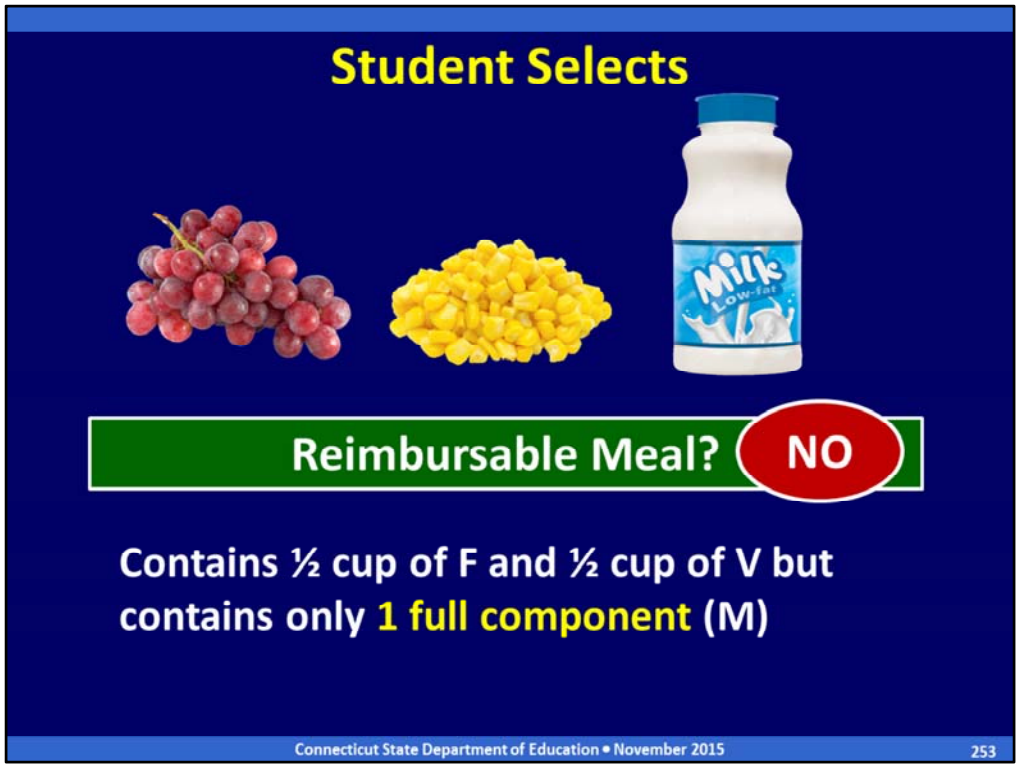



The student selects the grapes, cantaloupe and milk. Is this a reimbursable meal?

No. While the selected meal contains three food items, it only contains the minimum required serving of two full components:

- milk from the milk; and
- 1 cup of fruits from the grapes and cantaloupe.

The grapes (½ cup) and cantaloupe (½ cup) combined provide the full required 1 cup of the fruits component, and therefore count as only one component.

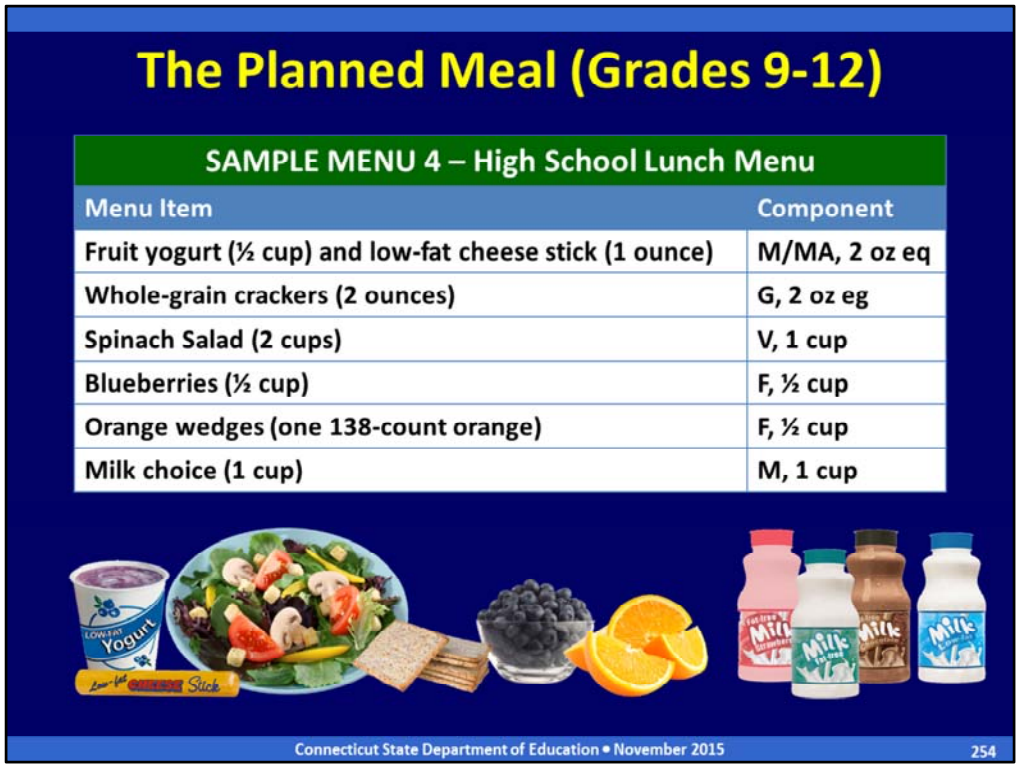



The student selects the grapes, broccoli and milk. Is this a reimbursable meal?

No. The selected meal contains the minimum required serving of only one full component: milk.

Note: The ½ cup of grapes meets the OVS requirement for at least ½ cup fruits or vegetables but it does not count as a full component, since the minimum serving size for grades 9-12 is 1 cup of fruit. Remember that this menu was planned to meet the daily required minimum 1 cup of fruit from two foods: ½ cup of grapes and ½ cup of cantaloupe.

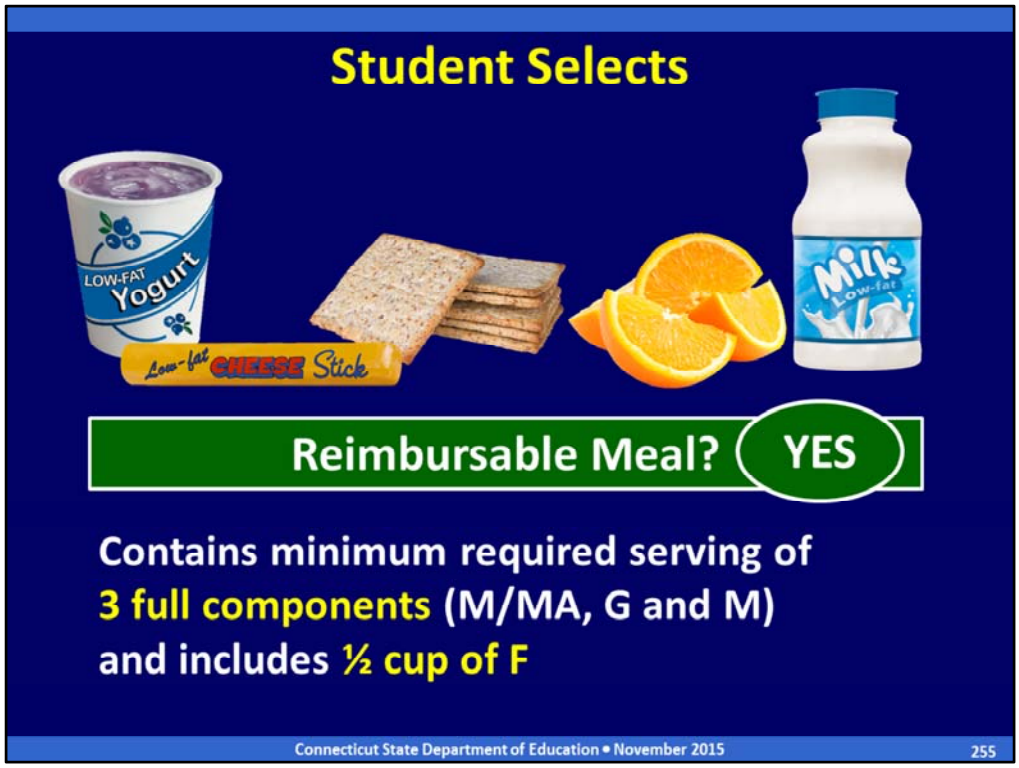
Note: The ½ cup of broccoli meets the OVS requirement for at least ½ cup fruits or vegetables but it does not count as a full component, since the minimum serving size for grades 9-12 is 1 cup of vegetables. Remember that this menu was planned to meet the daily required minimum 1 cup of fruit from two foods: ½ cup of broccoli and ½ cup of carrots.




This lunch menu for grades 9-12 is planned to include:

- ½ cup of low-fat fruit yogurt (1 ounce equivalent) and 1 ounce of low-fat cheese (1 ounce equivalent) to meet the required 2 ounce equivalents for the M/MA component;
- 2 ounces of whole-grain crackers (2 ounce equivalents) to meet the required 2 ounce equivalents for the grains component;
- 2 cups of spinach salad to meet the 1 cup vegetables component (raw leafy greens count as half the volume served);
- ½ cup of blueberries and ½ cup of orange wedges to meet the 1 cup fruits component; and
- a choice of 1 cup of low-fat (1%) milk, fat-free milk or fat-free flavored milk to meet the milk component.

This lunch menu is planned to offer the minimum daily 2 ounce equivalents for M/MA as **two food items** (½ cup of yogurt and 1 ounce of low-fat cheese). Since each food item provides **half** of the minimum daily 2 ounce equivalents of the M/MA component for grades 9-12, one item alone cannot count as the full component.



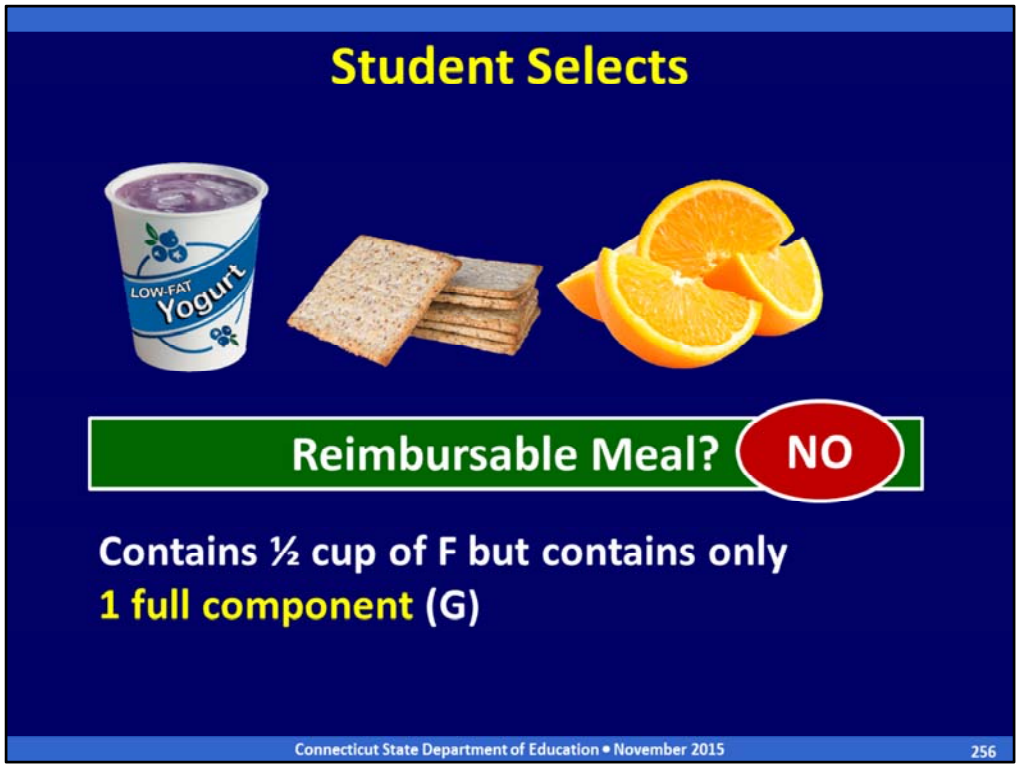

The student selects the yogurt and cheese stick, crackers, orange and milk. Is this a reimbursable meal?

Yes. The selected meal contains the minimum required serving of three full components:

- M/MA from the yogurt and cheese;
- grains from the crackers;
- milk from the milk.

It also includes ½ cup of oranges, which meets the requirement for at least ½ cup of fruits or vegetables.

Note: The ½ cup of oranges meets the OVS requirement for at least ½ cup of fruits or vegetables but it does not count as a full component, since the minimum serving size for grades 9-12 is 1 cup of fruit. Remember that this menu was planned to meet the minimum 1 cup of fruit from **two** food items: ½ cup of oranges and ½ cup of blueberries.

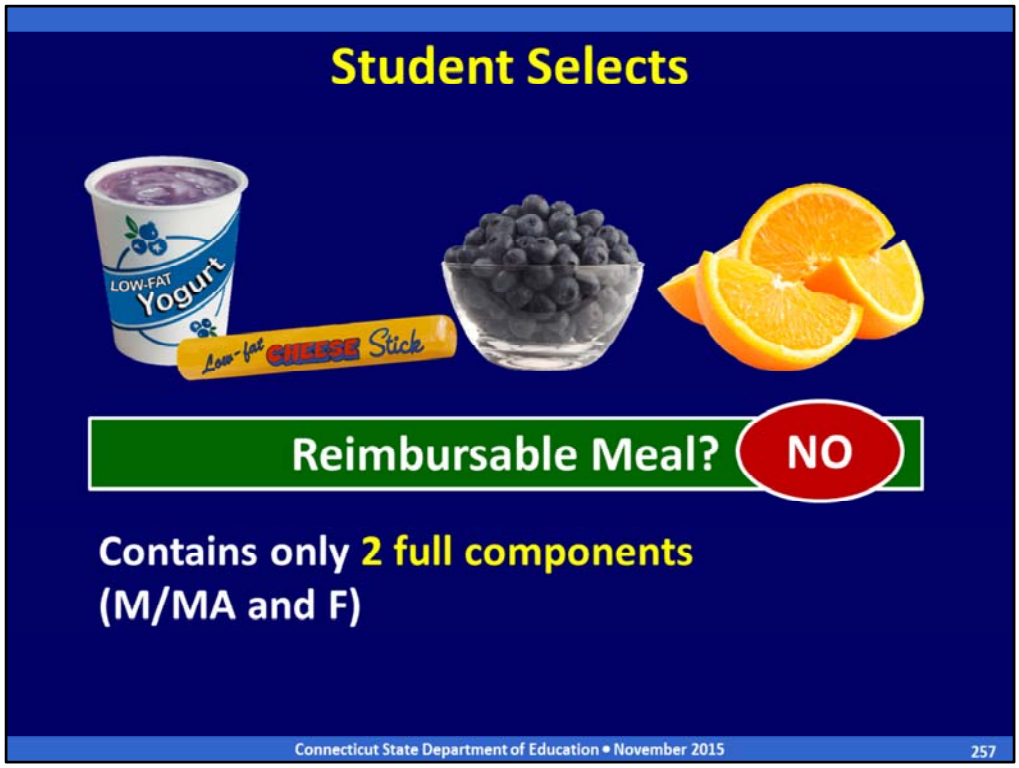



The student selects the yogurt, crackers and orange slices. Is this a reimbursable meal?

No. The selected meal contains ½ cup of fruit but contains the minimum required serving of only one full component: grains from the crackers.

The yogurt does not count as a component. Remember that the planned menu offers the minimum daily 2 ounce equivalents for M/MA as **two** food items (½ cup of yogurt and 1 ounce of low-fat cheese). Since each food item provides **half** of the minimum daily 2 ounce equivalents of the M/MA component for grades 9-12, one item alone cannot count as the full component.

Note: The ½ cup of oranges meets the OVS requirement for at least ½ cup of fruits or vegetables but it does not count as a full component, since the minimum serving size for grades 9-12 is 1 cup of fruit. Remember that this menu was planned to meet the minimum 1 cup of fruit from **two** food items: ½ cup of oranges and ½ cup of blueberries.

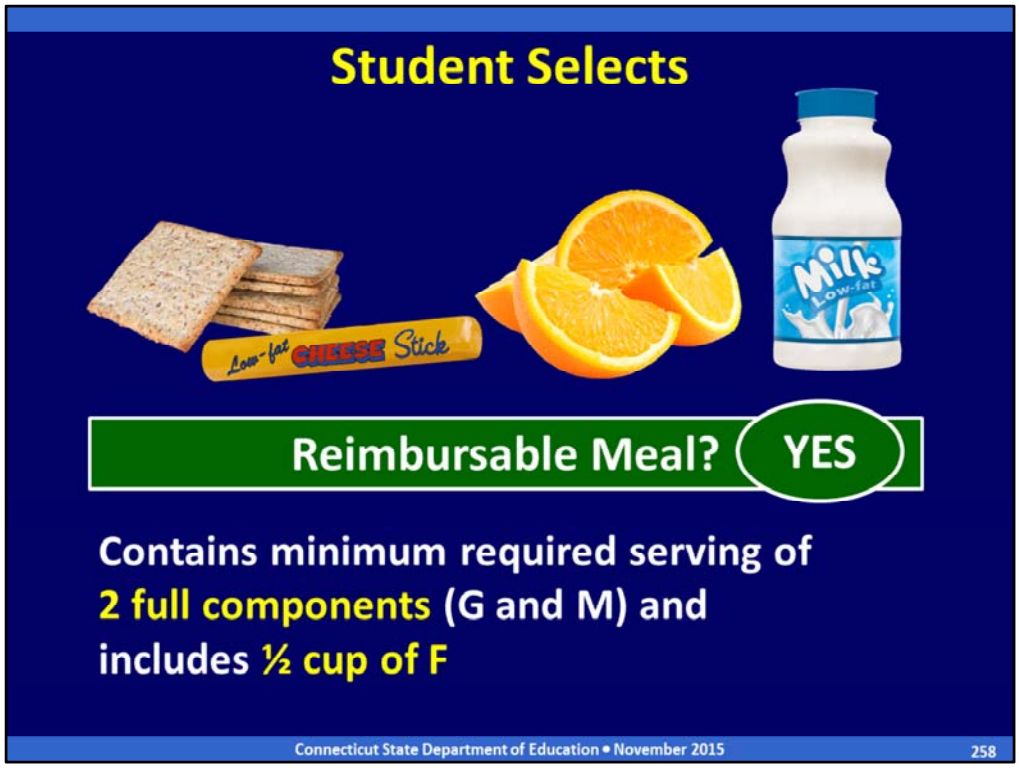



The student selects the yogurt, cheese stick, blueberries and orange slices. Is this a reimbursable meal?

No. The selected meal contains only two full components: 1 cup of fruit (one full component from the blueberries and orange wedges) and M/MA from the yogurt and cheese stick.

The yogurt does not count as a component. Remember that the planned menu offers the minimum daily 2 ounce equivalents for M/MA as **two** food items (½ cup of yogurt and 1 ounce of low-fat cheese). Since each food item provides **half** of the minimum daily 2 ounce equivalents of the M/MA component for grades 9-12, one item alone cannot count as the full component.

In addition, the planned menu offers the minimum daily 1 cup of fruit as **two** food items (½ cup of blueberries and ½ cup of orange wedges). Since each food item provides **half** of the daily fruits component for grades 9-12, one item alone cannot count as the full component.



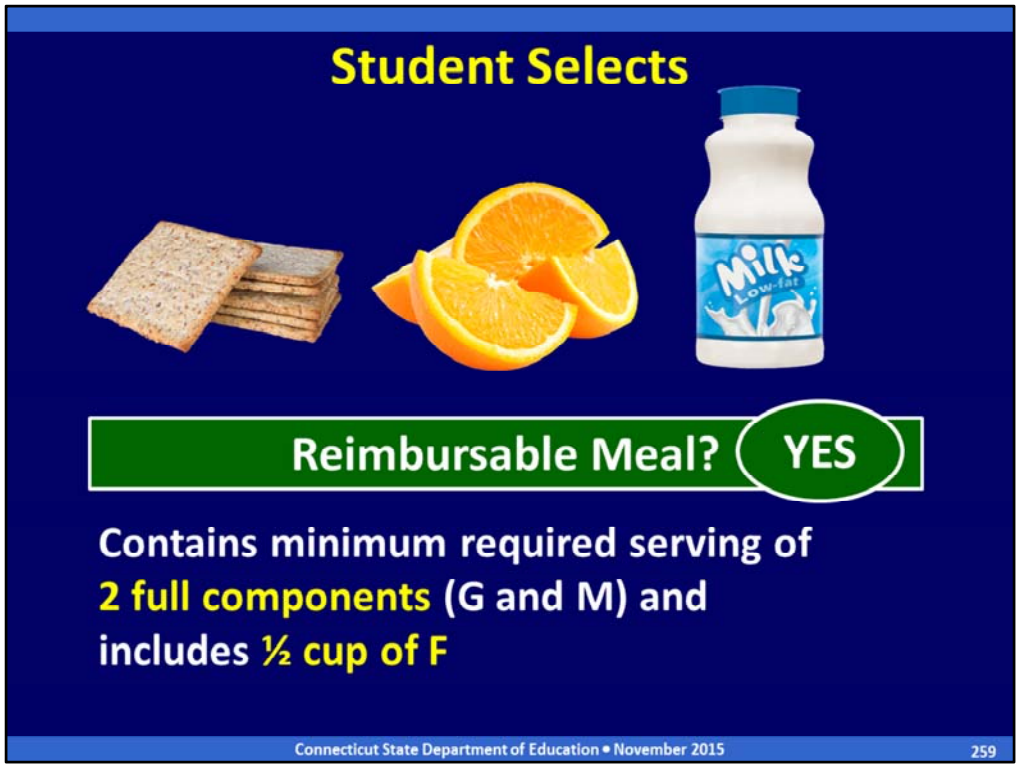

The student selects the cheese stick, crackers, orange slices and milk. Is this a reimbursable meal?

Yes. The selected meal contains the minimum required serving of two full components:

- grains from the crackers; and
- milk from the milk.

It also includes ½ cup of orange slices, which meets the requirement for at least ½ cup of fruits or vegetables. However, it does not count as a full component, since the minimum serving size for grades 9-12 is 1 cup of fruit. Remember that this menu was planned to meet the minimum 1 cup of fruit from **two** food items: ½ cup of oranges and ½ cup of blueberries.

Remember that the planned menu offers the minimum daily 2 ounce equivalents for M/MA as **two** food items (½ cup of yogurt and 1 ounce of low-fat cheese). Since each food item provides **half** of the minimum daily 2 ounce equivalents of the M/MA component for grades 9-12, one item alone cannot count as the full component.

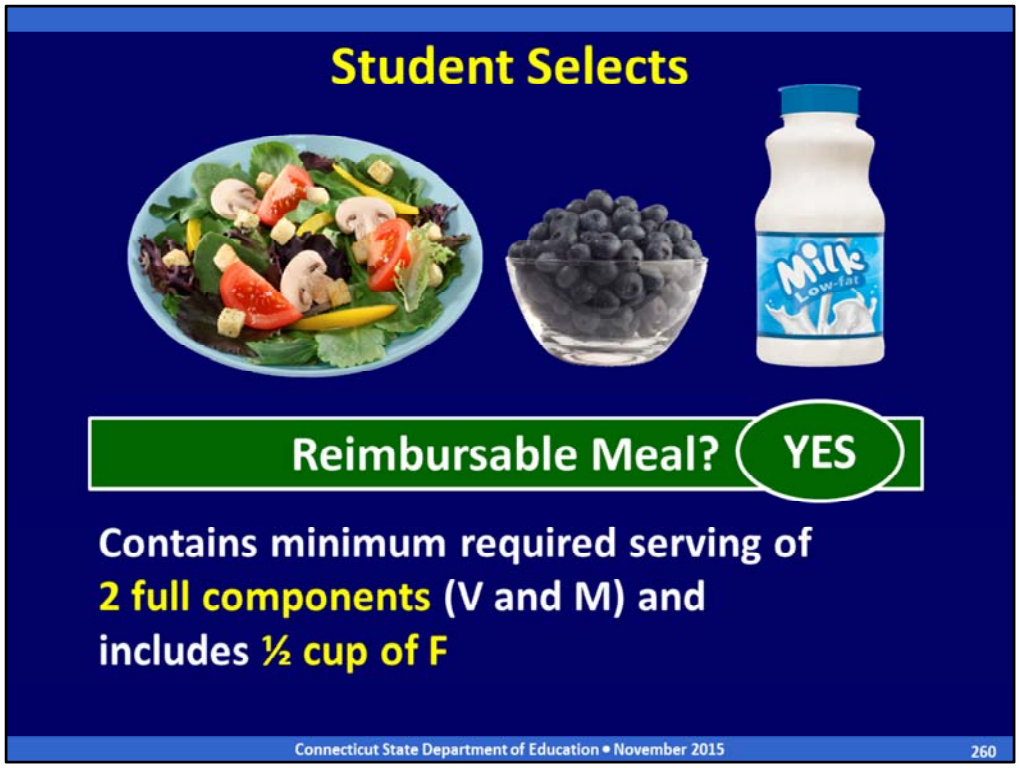



Yes. The selected meal contains the minimum required serving of two components:

- grains from the crackers;
- milk from the milk.

It also includes ½ cup of oranges, which meets the requirement for at least ½ cup of fruits or vegetables.

Note: The ½ cup of oranges meets the OVS requirement for at least ½ cup of fruits or vegetables but it does not count as a full component, since the minimum serving size for grades 9-12 is 1 cup of fruit. Remember that this menu was planned to meet the minimum 1 cup of fruit from **two** food items: ½ cup of oranges and ½ cup of blueberries.



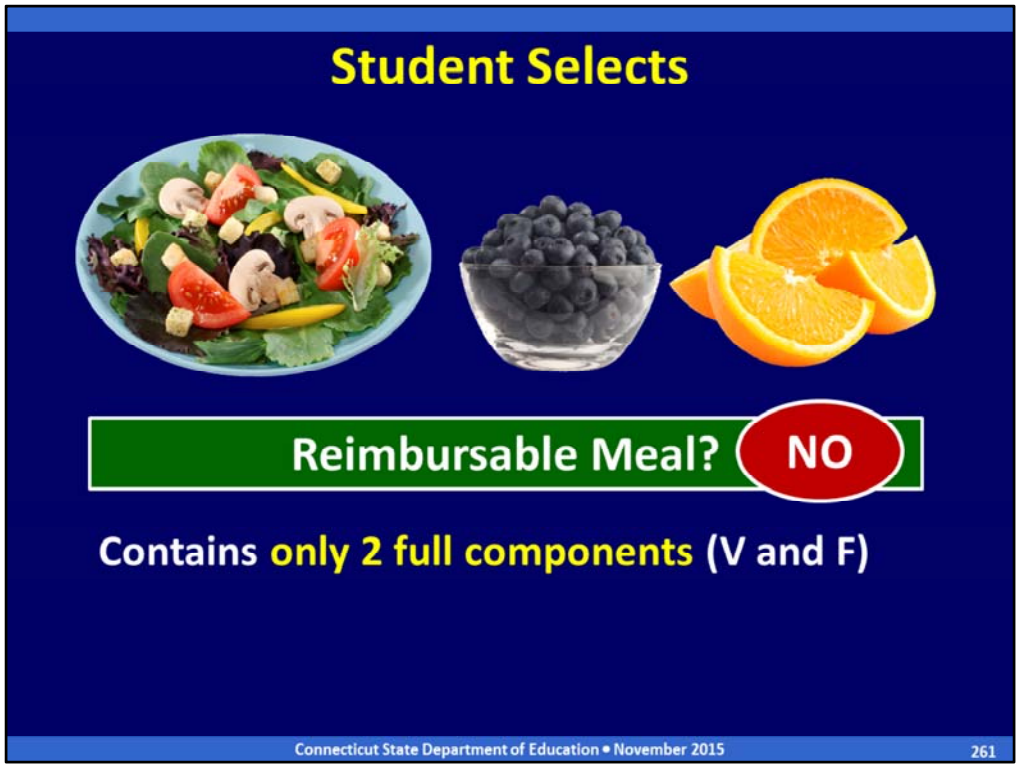

The student selects the spinach salad, blueberries and milk. Is this a reimbursable meal?

Yes. The selected meal contains the minimum required serving of two components:

- vegetables from the spinach salad; and
- milk from the milk.

It also includes ½ cup of blueberries, which meets the requirement for at least ½ cup of fruits or vegetables.

Note: The ½ cup of blueberries meets the OVS requirement for at least ½ cup of F but it does not count as a full component, since the minimum serving size for grades 9-12 is 1 cup of fruit. Remember that this menu was planned to meet the minimum 1 cup of fruit from **two** food items: ½ cup of oranges and ½ cup of blueberries.

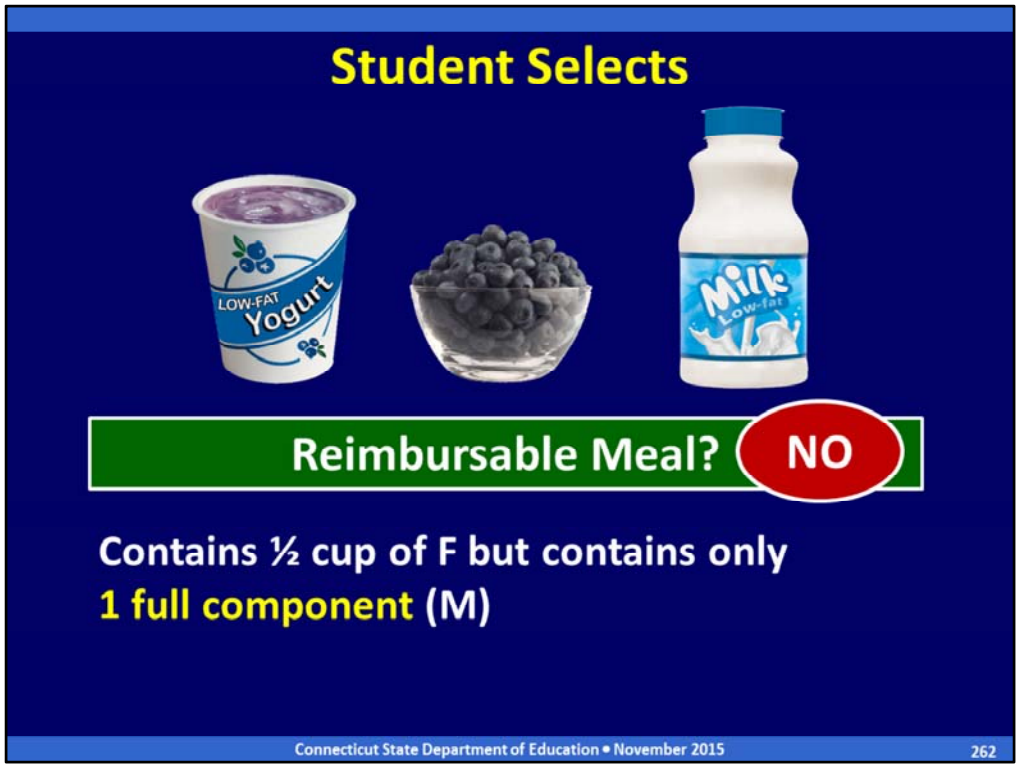



The student selects the spinach salad, blueberries and orange slices. Is this a reimbursable meal?

No. The selected meal contains the minimum required serving of only two full components:

- 1 cup of vegetables from the spinach salad; and
- 1 cup of fruits from the blueberries and orange wedges.

Remember that the planned menu offers the minimum daily 1 cup of fruit as **two** food items (½ cup of blueberries and ½ cup of orange wedges). Since each food item provides **half** of the daily fruits component for grades 9-12, one item alone cannot count as the full component.



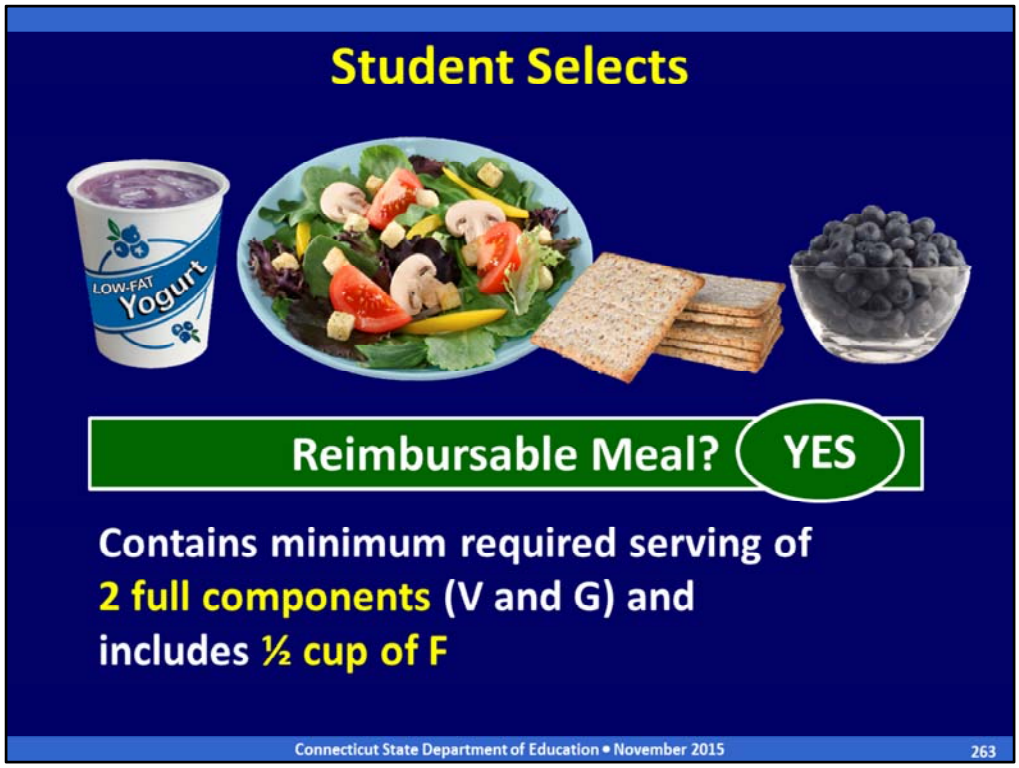

The student selects the yogurt blueberries and milk. Is this a reimbursable meal?

No. The selected meal contains ½ cup of fruit (blueberries) but contains the minimum required serving of only one full component: milk.

The yogurt does not count as a component. Remember that the planned menu offers the minimum daily 2 ounce equivalents for M/MA as **two** food items (½ cup of yogurt and 1 ounce of low-fat cheese). Since each food item provides **half** of the minimum daily 2 ounce equivalents of the M/MA component for grades 9-12, one item alone cannot count as the full component.

If the student selected both the yogurt and cheese stick, this would be a reimbursable meal.

Note: The ½ cup of blueberries meets the OVS requirement for at least ½ cup of fruits or vegetables but it does not count as a full component, since the minimum serving size for grades 9-12 is 1 cup of fruit. Remember that this menu was planned to meet the minimum 1 cup of fruit from **two** food items: ½ cup of oranges and ½ cup of blueberries.




The student selects the spinach salad, crackers, blueberries and yogurt. Is this a reimbursable meal?

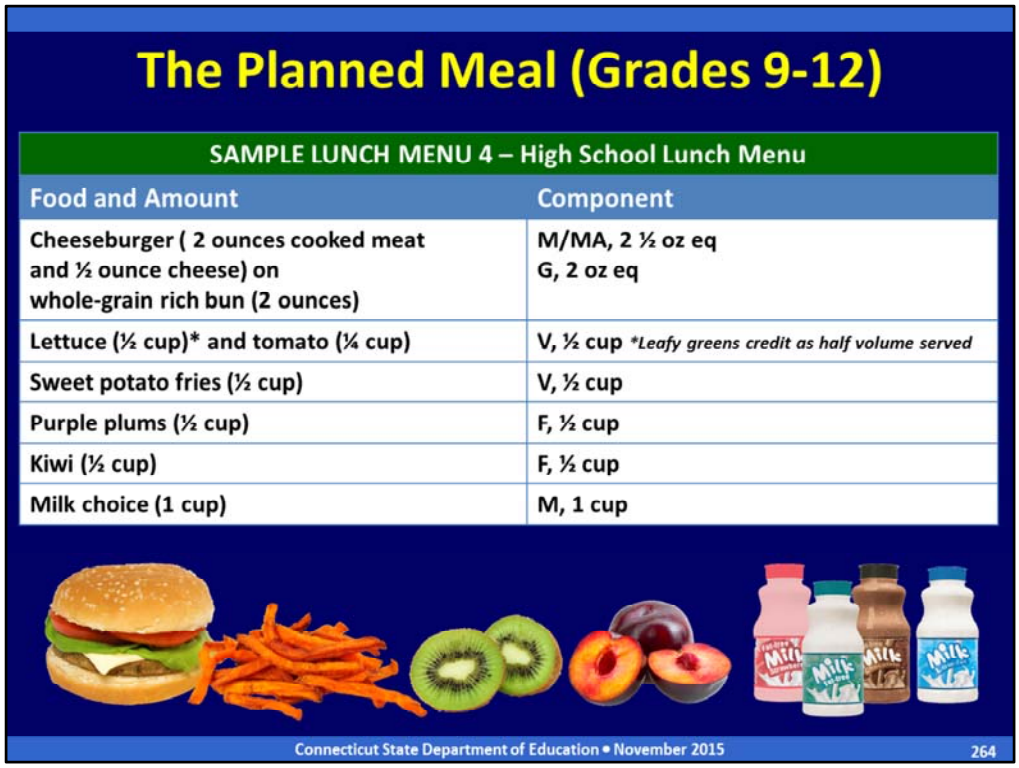
Yes. The selected meal contains the minimum required serving of two full components:

- vegetables from the spinach salad; and
- grains from the crackers.

It also includes ½ cup of blueberries, which meets the requirement for at least ½ cup of fruits or vegetables.

The yogurt does not count as a component. Remember that the planned menu offers the minimum daily 2 ounce equivalents for M/MA as **two** food items (½ cup of yogurt and 1 ounce of low-fat cheese). Since each food item provides **half** of the minimum daily 2 ounce equivalents of the M/MA component for grades 9-12, one item alone cannot count as the full component.

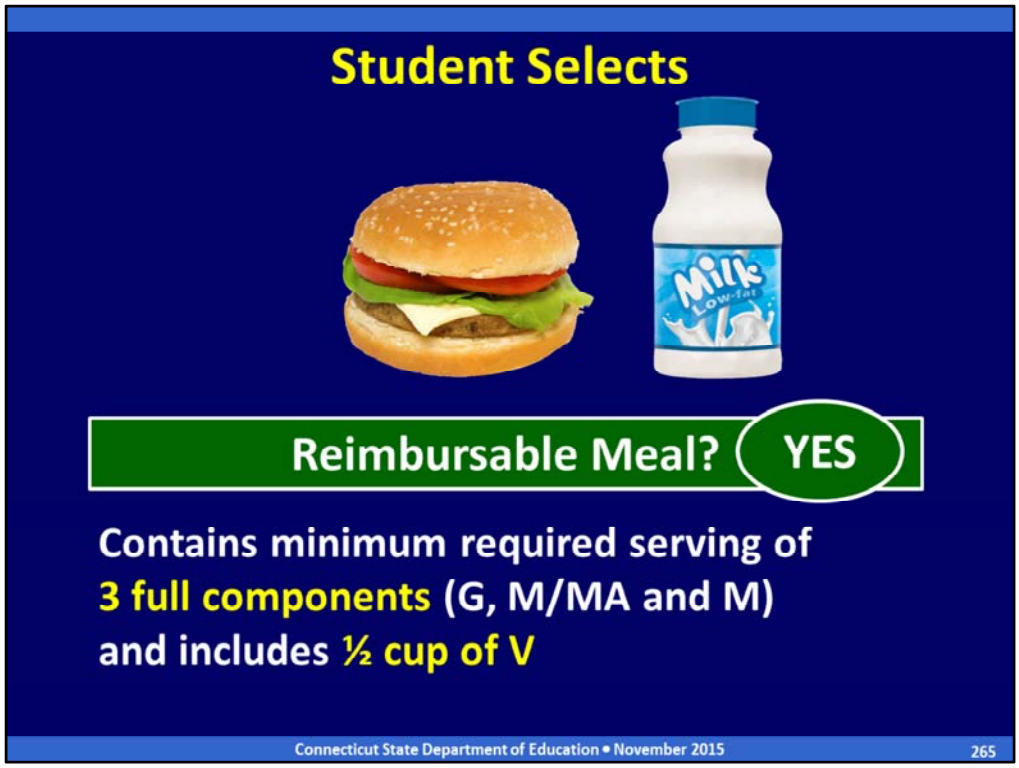
Note: The ½ cup of blueberries meets the OVS requirement for at least ½ cup of fruits or vegetables but it does not count as a full component, since the minimum serving size for grades 9-12 is 1 cup of fruit. Remember that this menu was planned to meet the minimum 1 cup of fruit from **two** food items: ½ cup of oranges and ½ cup of blueberries.




This menu is planned to include all **five** food components in the appropriate portion sizes for grades 9-12:

- the cheeseburger provides 2 ounce equivalents of grains (whole-grain bun) and 2 ounce equivalents of M/MA (meat and cheese);
- the required 1 cup of the vegetables component includes ½ cup of lettuce and tomato, and ½ cup of sweet potato fries;
- ½ cup of kiwi and ½ cup of fresh plums provide the required 1 cup of the fruits component; and
- a choice of 1 cup of low-fat (1%) milk, fat-free milk or fat-free flavored milk to meet the milk component.

Note: For this example, we are assuming that lettuce and tomato is served separately so students have the option to take it.

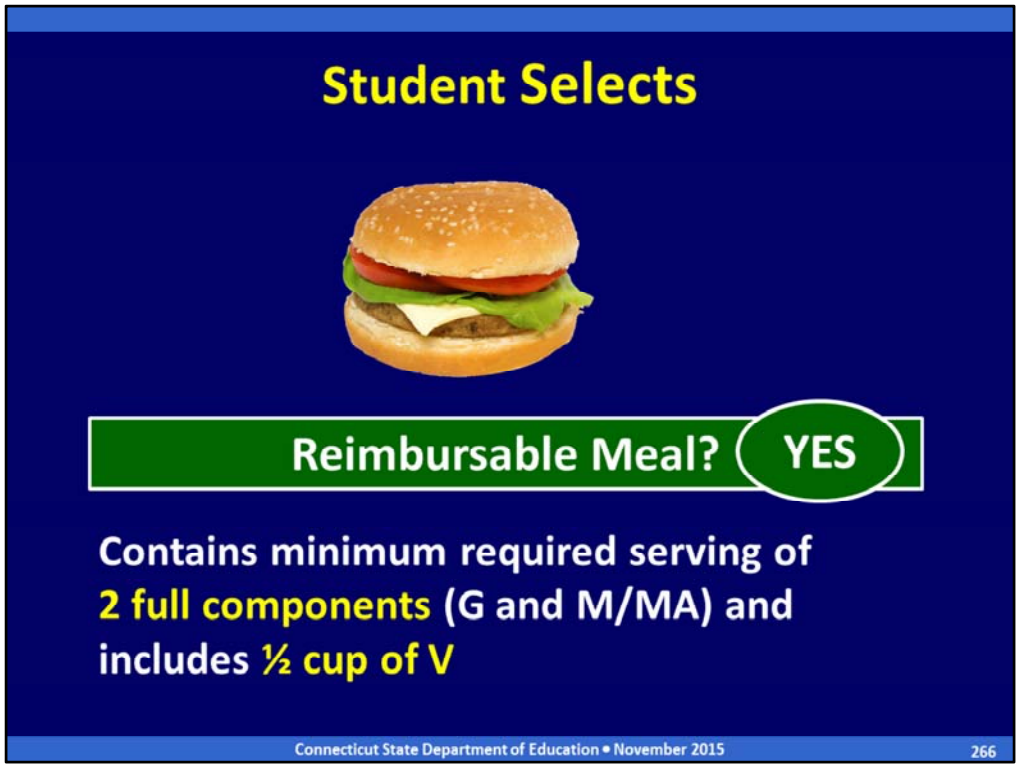



The student selects the cheeseburger with lettuce and tomato, and milk. Is this a reimbursable meal?

Yes. The selected meal contains the minimum required serving of three full components:

- grains from the bun;
- M/MA from the hamburger and cheese; and
- milk from the milk.

It also includes ½ cup of vegetables from the lettuce (½ cup of raw leafy greens credit as ¼ cup) and tomato (¼ cup), which meets the requirement for at least ½ cup of fruits or vegetables. Remember that raw leafy greens count as HALF the volume served.

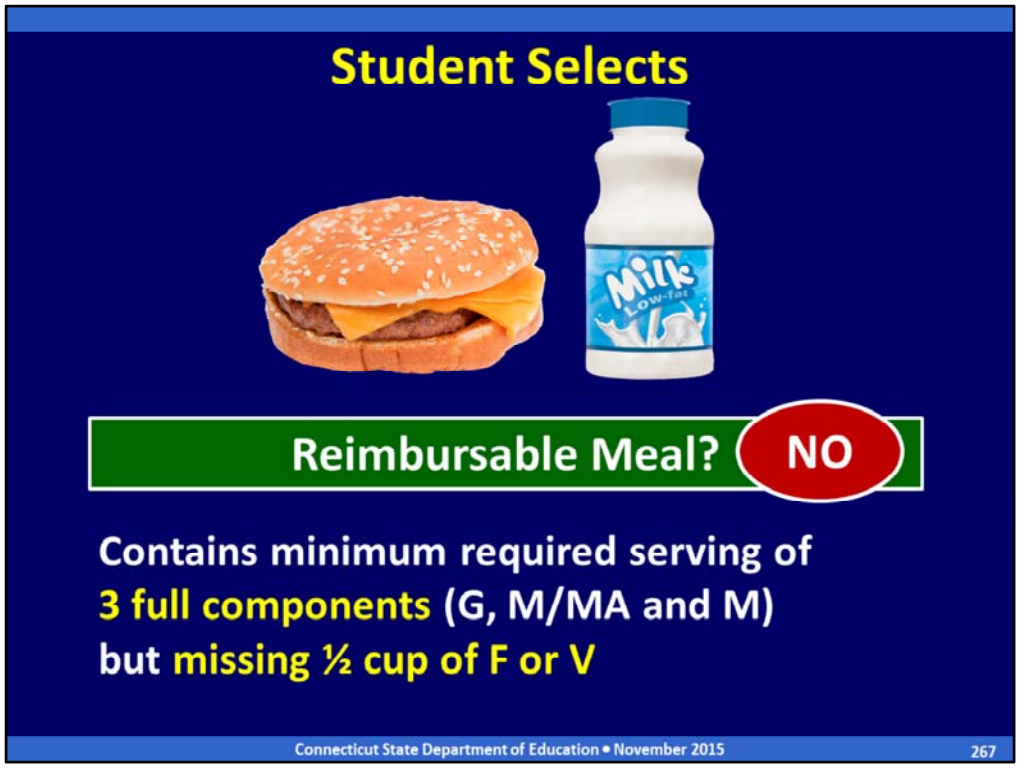



The student selects the cheeseburger with lettuce and tomato. Is this a reimbursable meal?

Yes. The selected meal contains the minimum required serving of two full components:

- grains from the bun; and
- M/MA from the hamburger and cheese.

It also includes ½ cup of vegetables from the lettuce (½ cup of raw leafy greens credit as ¼ cup) and tomato (¼ cup), which meets the requirement for at least ½ cup of fruits or vegetables. Remember that raw leafy greens count as HALF the volume served.

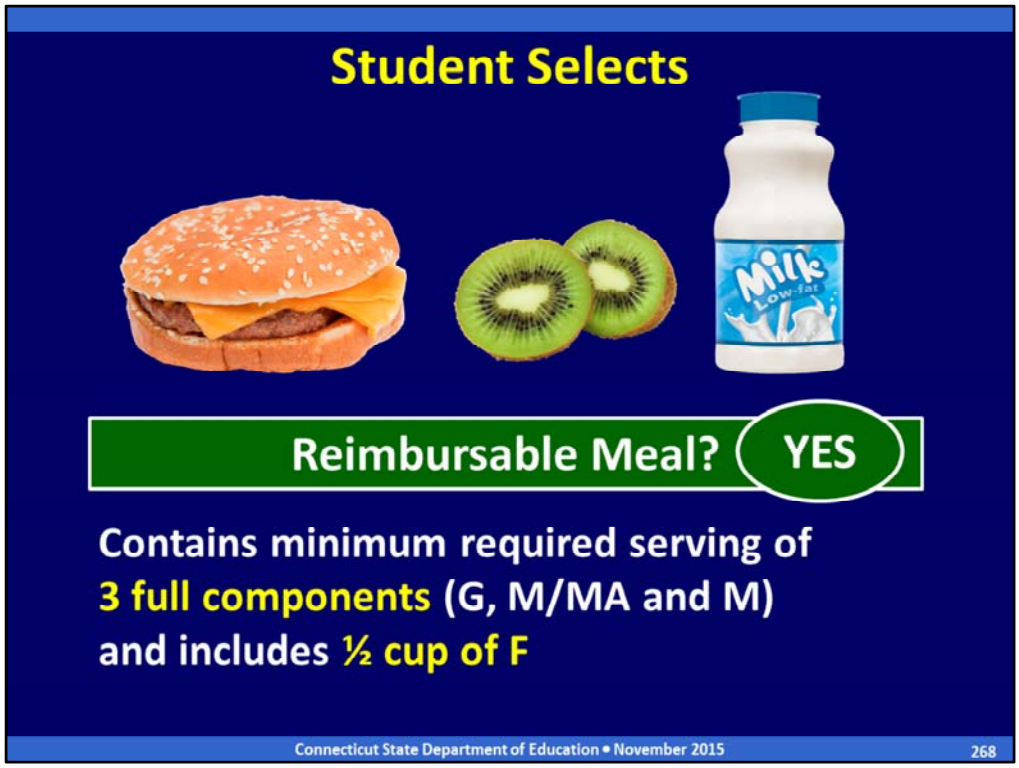



The student selects the cheeseburger (WITHOUT lettuce and tomato) and milk. Is this a reimbursable meal?

No. The selected meal contains the minimum required serving of three full components:

- grains from the bun;
- M/MA from the hamburger and cheese; and
- milk from the milk

However, it is missing at least ½ cup of fruits or vegetables.

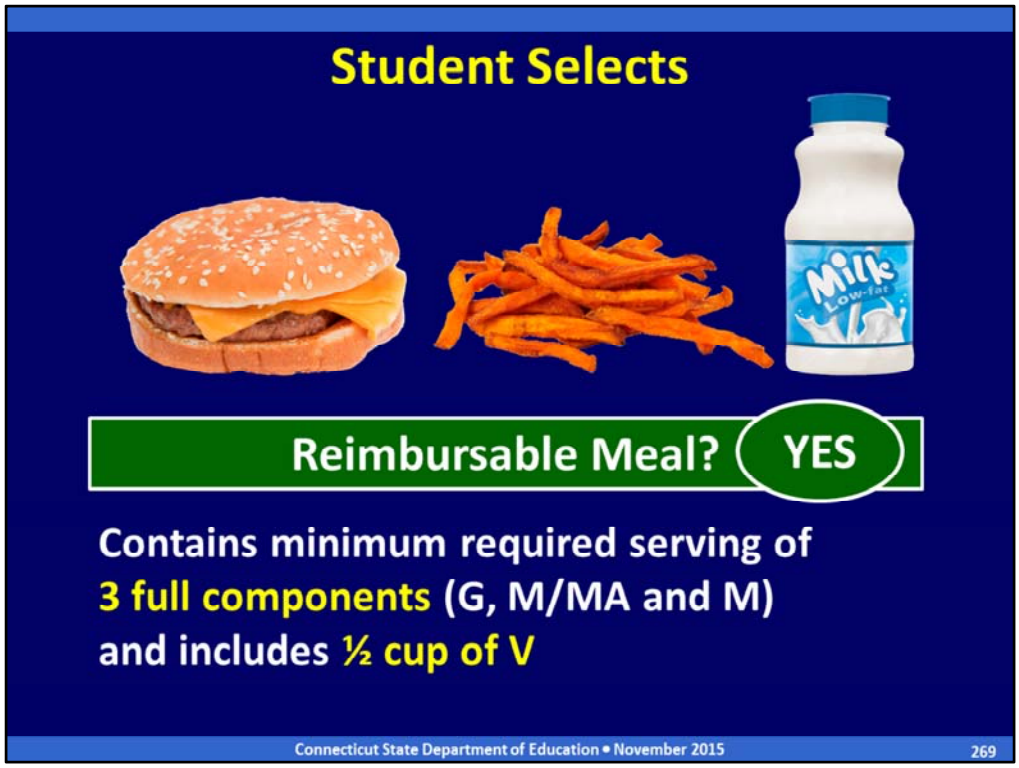



The student selects the cheeseburger, kiwi and milk. Is this a reimbursable meal?

Yes. The selected meal contains the minimum required serving of three full components:

- grains from the bun;
- M/MA from the hamburger and cheese; and
- milk from the milk

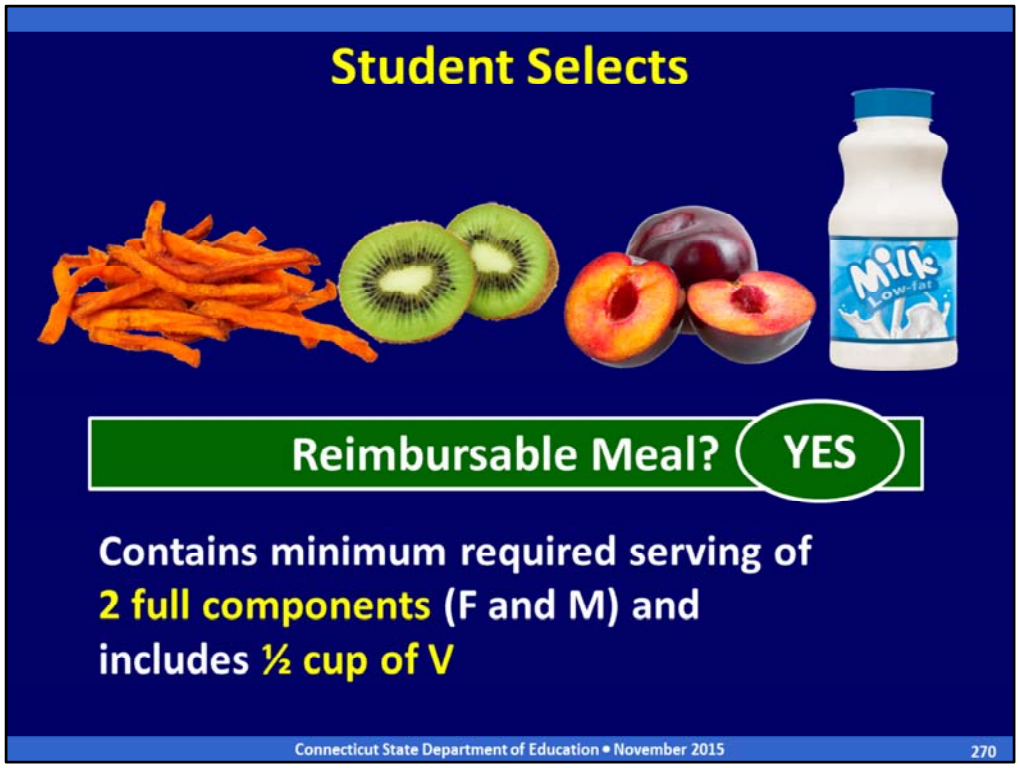
It also includes ½ cup of kiwi, which meets the requirement for at least ½ cup of fruits or vegetables.




Yes. The selected meal contains the minimum required serving of three full components:

- grains from the bun;
- M/MA from the hamburger and cheese; and
- milk from the milk.

It also includes ½ cup of sweet potato fries, which meets the requirement for at least ½ cup of fruits or vegetables.




The student selects the cheeseburger, sweet potato fries and milk. Is this a reimbursable meal?

Yes. The selected meal contains the minimum required serving of two full components:

- fruits from the kiwi and plums; and
- milk from the milk.

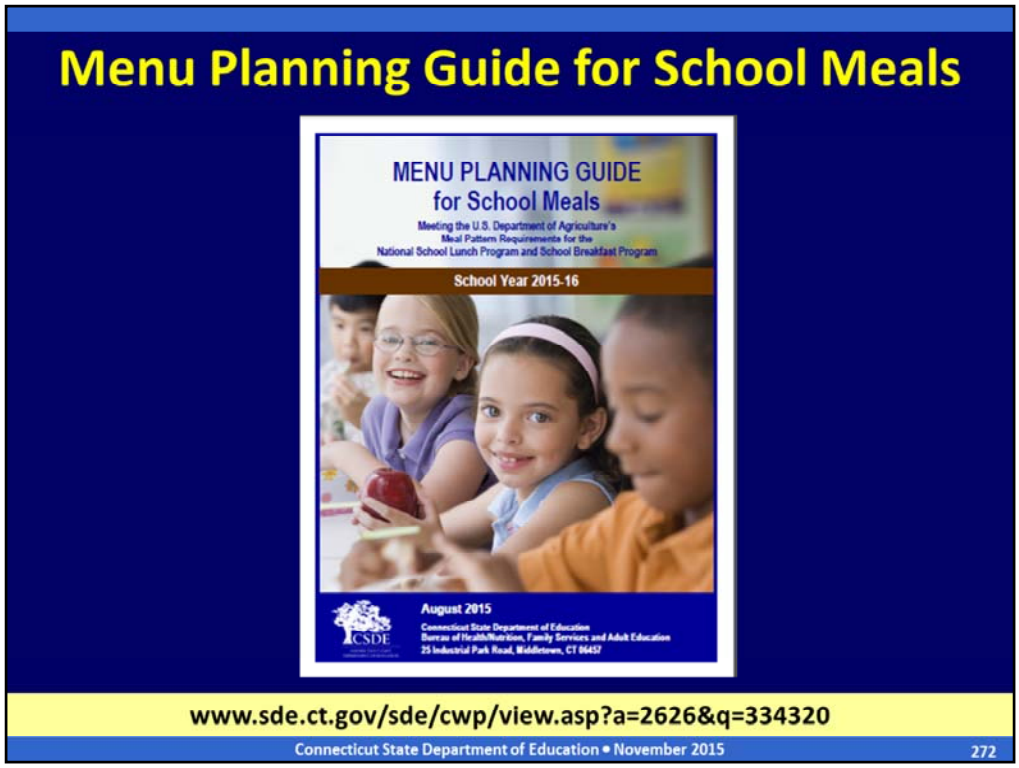
It also includes ½ cup of sweet potato fries, which meets the requirement for at least ½ cup of fruits or vegetables.

Remember that the planned menu offers the minimum daily 1 cup of fruit as **two** food items (½ cup of kiwi and ½ cup of plums). Since each food item provides **half** of the daily fruits component for grades 9-12, one item alone cannot count as the full component.


We have discussed a lot of information today about the meal pattern requirements for the NSLP. This activity will help us review the key strategies regarding how to plan meals to meet the NSLP requirements and encourage student selections of reimbursable meals under OVS.

**Instructions:**

- Pair up with someone that you have not partnered with before (or if time is short, pair up with the person next to you). Share with each other one thing about menu planning strategies for lunch that is either new to you or a good reminder to use in your programs.
- **Modification**: If time is short, have participants partner with someone at their table.
- Ask a few teams to share their information. Adjust the number of people you ask to share as needed to accommodate the schedule.
- Remind participants about the handout in their packet, "Resources for School Meals," containing links to many key resources to assist with menu planning for the NSLP and SBP.

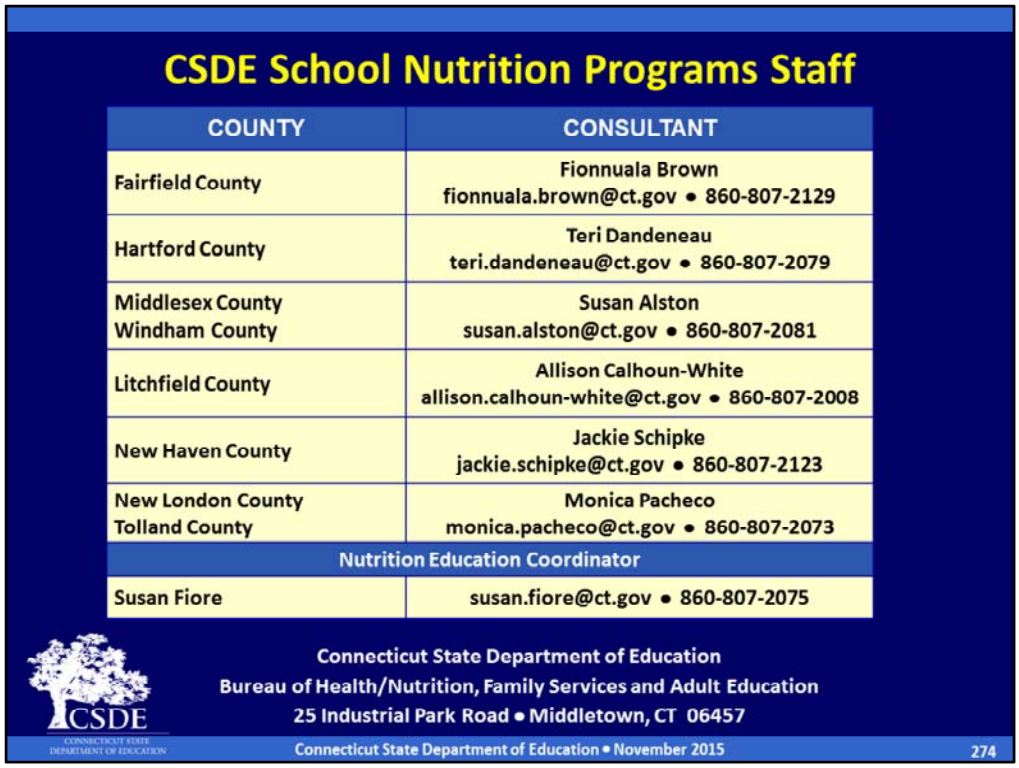



The CSDE's *Menu Planning Guide for School Meals* contains comprehensive information and guidance on planning menus to meet the USDA meal patterns for the National School Lunch Program (NSLP), School Breakfast Program (SBP) and Seamless Option (SSO) of the NSLP, based on USDA regulations and policy and Connecticut statutes and regulations.

Remember to use this guide as the definitive resource to help menus comply with the meal pattern requirements. It is available at the link indicated on this slide.


Thank you for participating in today's workshop.

Before you leave, please complete and return your evaluation. When you give us your evaluation, you will receive a certificate of attendance.



## CSDE School Nutrition Programs Staff

| COUNTY | CONSULTANT |
|---|---|
| Fairfield County | Fionnuala Brown<br>fionnuala.brown@ct.gov • 860-807-2129 |
| Hartford County | Teri Dandeneau<br>teri.dandeneau@ct.gov • 860-807-2079 |
| Middlesex County<br>Windham County | Susan Alston<br>susan.alston@ct.gov • 860-807-2081 |
| Litchfield County | Allison Calhoun-White<br>allison.calhoun-white@ct.gov • 860-807-2008 |
| New Haven County | Jackie Schipke<br>jackie.schipke@ct.gov • 860-807-2123 |
| New London County<br>Tolland County | Monica Pacheco<br>monica.pacheco@ct.gov • 860-807-2073 |
| Nutrition Education Coordinator | |
| Susan Fiore | susan.fiore@ct.gov • 860-807-2075 |

CSDE
CONNECTICUT STATE DEPARTMENT OF EDUCATION

Connecticut State Department of Education
Bureau of Health/Nutrition, Family Services and Adult Education
25 Industrial Park Road • Middletown, CT 06457

Connecticut State Department of Education • November 2015 274

Please contact your assigned consultant with any questions.