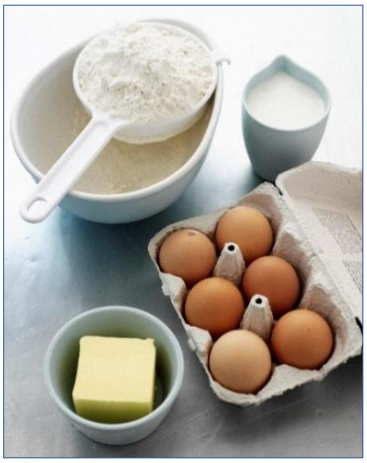
Guidance on Evaluating Recipes for Compliance with the Connecticut Nutrition Standards



This document reviews the steps for determining if foods made from scratch comply with the Connecticut Nutrition Standards (CNS). Public school districts that choose the healthy food option of Healthy Food Certification (HFC) under Section 10-215f of the Connecticut General Statutes must ensure that all foods available for sale to students separately from reimbursable meals meet the CNS. Examples of sources that might sell foods made from scratch include the school cafeteria, bake sales, fundraisers, culinary arts programs, family and consumer sciences classes, and afterschool programs. The CNS also applies to all foods served in the Afterschool Snack Program (ASP).

For information on HFC and the CNS, refer to the Connecticut State Department of Education's (CSDE) resources, *Requirements for Competitive Foods in HFC Public Schools* and *Summary Chart of Federal and State Requirements for Competitive Foods in HFC Public Schools*, and visit the CSDE's Healthy Food Certification webpage. For information on the CNS requirements, refer to the CSDE's resource, *Summary of Connecticut Nutrition Standards*, and visit the CSDE's Connecticut Nutrition Standards webpage. The CSDE's *Complying with Healthy Food Certification* training program provides detailed guidance on the HFC and CNS requirements.

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Foods Made from Scratch Require Standardized Recipes

The CSDE requires standardized recipes to determine if foods made from scratch comply with the CNS (refer to "Categories of Foods Made from Scratch" in this document). The U.S. Department of Agriculture (USDA) defines a standardized recipe as one that has been tried, adapted, and retried at least three times and has been found to produce the same good results and yield every time when the exact procedures are used with the same type of equipment and the same quantity and quality of ingredients. Standardized quantity recipes produce 25 or more servings.

Standardized recipes have a specific format that produces a consistent product with consistent food quality and nutrient content each time the food is prepared. For example, standardized recipes include weight measurements (such as pounds and ounces) in addition to volume measurements (such as quarts and cups).

Weight is more precise than volume; it ensures an accurate and consistent recipe yield and nutrient content each time the food is prepared. For example, measuring flour by volume can result in a different weight (and therefore a different nutrient content) each time the food is prepared. However, measuring flour by weight always results in the same amount with the same nutrient content each time the food is prepared.

> Standardized recipes are required to conduct a nutrient analysis and ensure that the nutrition information per serving is accurate. Districts must maintain standardized recipes on file for all competitive foods made from scratch that are available for sale to students on school premises.

Guidance on how to develop standardized recipes is available in the "Standardized Recipes" section of the CSDE's Crediting Documentation for the Child Nutrition Programs webpage.

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Required CNS Documentation for Foods Made from Scratch

Foods made from scratch cannot be sold to students on school premises unless the selling entity has documentation on file to indicate that the serving with its accompaniments complies with the CNS. The required CNS documentation includes the two items below.

1. **Standardized recipe:** An accurate standardized recipe that indicates the calories, fat, saturated fat, sodium, and sugars per serving.

2. **CNS worksheet:** The completed CNS worksheet for the applicable food category documenting that the serving with its accompaniments complies with the CNS (refer to "CNS Worksheets" in the "Evaluating Foods for CNS Compliance" section of the CSDE's CNS webpage).

> Accompaniments are foods that accompany another food or beverage, such as butter, cream cheese, syrup, ketchup, mustard, mayonnaise, and salad dressing. Foods must be evaluated for CNS compliance based on the serving including any added accompaniments (refer to "Reviewing Foods Served with Accompaniments" in this document).

Schools must maintain CNS documentation on file for the annual HFC documentation (due by November 30) and the CSDE's Administrative Review of the school nutrition programs. For guidance on the HFC Documentation requirements, visit the "Annual HFC Documentation" section of the CSDE's HFC webpage.

Categories of Foods Made from Scratch

Standardized recipes that include the nutrition information per serving are required for the two categories of foods made from scratch below.

- **Category 1 – foods prepared from ingredients using a standardized recipe:** Examples include entrees sold only a la carte (i.e., not as part of reimbursable meals in the National School Lunch Program [NSLP] and School Breakfast Program [SBP]) such as pizza, chef's salad, lasagna, and sandwiches; soups; cooked grains (e.g., rice and pasta) with added salt and fat, e.g., oil, margarine, or butter; cooked vegetables with

added salt and fat; salad with dressing; fruit smoothies; and baked goods, e.g., muffins and cookies.

- **Category 2 – commercial products with ingredients added after purchasing:** Examples include popping popcorn kernels in oil and adding salt; making muffins from a mix and adding butter and eggs; and adding sprinkles to commercial frozen cookie dough.

> Adding ingredients to a commercial product changes its nutrition information per serving. The selling entity must create a standardized recipe for these foods based on the specific amount of each ingredient, then conduct a nutrient analysis to determine the nutrition information per serving.

Each standardized recipe must include the specific amount of any accompaniments served with the food (refer to "Reviewing Foods Served with Accompaniments" in this document). Before selling these foods to students, the selling entity must verify that the serving (including its accompaniments) meets each nutrition standard for the applicable CNS food category.

When Standardized Recipes Are Not Required

The CNS allows exemptions for NSLP and SBP entrees sold a la carte. Standardized recipes and nutrition information are not required for entrees sold a la carte during the same meal service on the same day that they are planned and served as part of reimbursable meals in the NSLP and SBP. These entrees are exempt from the CNS and may be sold a la carte during the meal service if they comply with the following requirements: 1) same or smaller portion size as the NSLP and SBP; 2) same accompaniments; and 3) no artificial sweeteners, nonnutritive sweeteners, sugar alcohols, or chemically altered fat substitutes.

This exemption applies only to the three categories of main dish entree items defined by the CNS (refer to the CSDE's resource, *Summary of Connecticut Nutrition Standards*).

1. A combination food of meat/meat alternate and whole grain-rich (WGR) food, e.g., breakfast egg sandwich on whole-wheat English muffin, turkey wrap on whole-wheat tortilla, pizza with WGR crust, hamburger on whole-grain bun, and bean burrito with whole-corn tortilla.

2. A combination food of vegetable/fruit and meat/meat alternate, e.g., chef's salad with turkey, cheese and hard-boiled egg, fruit and cheese platter, yogurt and fruit parfait, school-made yogurt and fruit/vegetable smoothies, baked potato with chili, and chicken vegetable stir-fry.

3. A meat/meat alternate alone (e.g., sausage patty, hard-boiled egg, and grilled chicken), excluding yogurt, cheese, nuts and seeds, nut and seed butters, and meat snacks, e.g., beef jerky and meat sticks.

Any other non-entree meal components sold separately from reimbursable meals must comply with the CNS. For example, french fries and muffins that are part of reimbursable meals cannot be sold a la carte unless they meet the CNS.

Reviewing Foods Served with Accompaniments

The CNS applies to the amount of the food as served, including any accompaniments served with the food, such as butter, cream cheese, salad dressing, and condiments. Some examples of foods with accompaniments include muffins with butter, pancakes with syrup, french fries with ketchup, salad with dressing, stir-fry chicken with duck sauce, and hamburgers with ketchup.

Adding accompaniments to a food made from scratch changes its nutrition information per serving. When foods include accompaniments, the nutrition information for the food and its accompaniments must be added together to determine if the serving complies with the CNS. The serving of the food with its accompaniments must meet each nutrition standard for the applicable CNS food category. For guidance on the CNS, refer to the CSDE's resource, *Summary of Connecticut Nutrition Standards*.

It is important to note that many accompaniments are high in fat, sugar, and sodium, and might cause compliant foods to exceed the CNS limits. For example, serving butter with a compliant whole grain-rich corn muffin might cause the muffin to exceed the CNS limit for calories and saturated fat. An accompaniment that causes the serving to exceed the CNS limit cannot be served with the food.



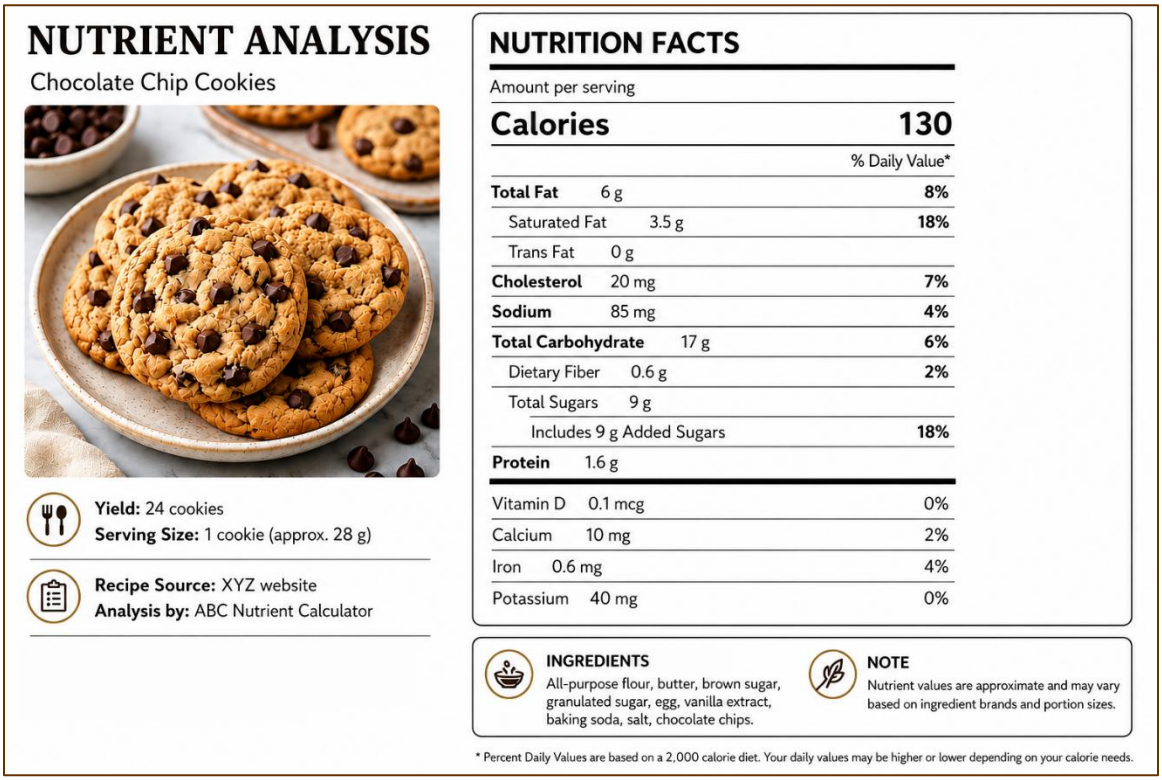
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Using Nutrient Analysis Software

Using a nutrient analysis software program is the simplest method to determine a standardized recipe's nutrition information per serving. To determine if the standardized recipe complies with the CNS, its nutrition information must indicate the calories, fat, saturated fat, trans fat, sodium, and total sugars per serving.

A missing nutrient value does not mean that the value is zero; it just means that the nutrient analysis software did not include that nutrient. For example, a software program might use an asterisk (*) or "NA" (not available) to indicate a nutrient value is missing, but the standardized recipe's ingredients might still contain that nutrient.

A nutrient analysis is required to determine any missing nutrient values before reviewing the recipe for CNS compliance (refer to "Required Steps for Standardized Recipes without Nutrition Information" in this document). Standardized recipes with missing nutrient values do not indicate CNS compliance and cannot be used to make competitive foods that are sold to students.



NUTRIENT ANALYSIS

Chocolate Chip Cookies

Yield: 24 cookies
Serving Size: 1 cookie (approx. 28 g)

Recipe Source: XYZ website
Analysis by: ABC Nutrient Calculator

NUTRITION FACTS

Amount per serving

Calories	**130**	
		% Daily Value*
Total Fat	6 g	**8%**
Saturated Fat	3.5 g	**18%**
Trans Fat	0 g	
Cholesterol	20 mg	**7%**
Sodium	85 mg	**4%**
Total Carbohydrate	17 g	**6%**
Dietary Fiber	0.6 g	**2%**
Total Sugars	9 g	
Includes 9 g Added Sugars		**18%**
Protein	1.6 g	
Vitamin D	0.1 mcg	0%
Calcium	10 mg	2%
Iron	0.6 mg	4%
Potassium	40 mg	0%

INGREDIENTS
All-purpose flour, butter, brown sugar, granulated sugar, egg, vanilla extract, baking soda, salt, chocolate chips.

NOTE
Nutrient values are approximate and may vary based on ingredient brands and portion sizes.

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

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Required Steps for Standardized Recipes with Nutrition Information

The selling entity must follow the steps below to determine if the serving complies with the CNS.

1. **Verify that the standardized recipe's nutrition information per serving includes all required nutrients.** The nutrition information must list values for calories, fat, saturated fat, sodium, and total sugars. If any nutrient values are missing, this information must be determined before proceeding to step 2.
    - Use the Nutrition Facts labels for the standardized recipe's ingredients (if available) and the USDA's FoodData Central nutrient database to obtain missing nutrition information.
    - Enter the missing nutrition information for each ingredient into the *CSDE's CNS Worksheet 9: Nutrient Analysis of Recipes*. This worksheet calculates the standardized recipe's nutrition information per serving.
    - Add the original nutrition information per serving to the missing nutrient's nutrition information per serving to get the standardized recipe's corrected nutrition information per serving.

2. **Determine the nutrition information for any accompaniments served with the food.** The CNS applies to the amount of the food as served, including its accompaniments. The nutrition information for the food and its accompaniments must be added together to determine if the serving complies with the CNS (refer to "Reviewing Foods Served with Accompaniments" in this document).

3. **Determine if the standardized recipe's serving complies with the CNS.** Enter the standardized recipe's nutrition information per serving (including its accompaniments) into the CNS worksheet for the applicable food category. CNS worksheets 1 and 3-8 may be used for recipes. Worksheet 2 (yogurt and pudding) is only for commercial products. For example, use:
    - CNS worksheet 1 (snacks) such as cookies, muffins, waffles, pancakes, French toast, soft pretzels, breads, and rolls;
    - CNS worksheet 3 for smoothies that contain low-fat yogurt or soy yogurt and fruits/vegetables/100 percent juice;
    - CNS worksheet 4 for fruits and vegetables prepared with added ingredients (e.g., fat, sugar, salt, and other ingredients);

- CNS worksheet 5 for soups;
- CNS worksheet 6 for cooked grains prepared with added ingredients (e.g., fat, sugar, salt, and other ingredients), such rice, pasta, and cereal grains, e.g., amaranth, barley, buckwheat, cornmeal, kasha, millet, oats, quinoa, wheat berries, and rolled wheat;
- CNS worksheet 7 for entrees, such as breakfast sandwiches, pizza, chef's salad, yogurt and fruit parfait, and chicken vegetable stir-fry; and
- CNS worksheet 8 for non-entree combination foods, such as vegetable egg rolls.

The CNS worksheets compare the standardized recipe's nutrition information per serving with the CNS and indicate if the serving complies. These worksheets and additional guidance on evaluating foods and beverages are available in the "Evaluating Foods for CNS Compliance" section of the CSDE's CNS webpage.

4. Maintain each standardized recipe and its completed CNS worksheet for the annual HFC documentation (due November 30 of each year) and the CSDE's Administrative Review of the school nutrition programs. For easy access, the CSDE recommends storing this information electronically in a computer folder.

Required Steps for Standardized Recipes without Nutrition Information

If a nutrient analysis software program is not available, the selling entity must conduct their own nutrient analysis of recipes using available Nutrition Facts labels for each ingredient and a nutrient database. The CSDE recommends using the USDA's FoodData Central database to obtain nutrition information for specific foods and ingredients. This USDA database incorporates the USDA's previous National Nutrient Database and includes five distinct types of data containing information on food and nutrient profiles.

The selling entity must follow the steps below to conduct a nutrient analysis of the standardized recipe and determine if the standardized recipe's serving complies with the CNS.

1. **Determine the standardized recipe's nutrition information.** Use Nutrition Facts labels for ingredients (if available) and the USDA's FoodData Central database to determine the calories, fat, saturated fat, trans fat, sodium, and sugars for each ingredient in the recipe. Note the important considerations below for ensuring an accurate nutrient analysis.

- **Find the specific ingredient in the database.** The accuracy of the nutrient analysis depends on selecting the database ingredient that most closely matches the standardized recipe ingredient, based on the brand, type, form, and pack of the food. Using the wrong ingredient can significantly change the standardized recipe's nutrition information and provide an inaccurate analysis. For example, the USDA's FoodData Central (Data type: Standard Reference (SR) Legacy, number 168833) indicates that 1 cup of packed brown sugar (220 grams) contains 836 calories and 213 grams of sugars, while 1 cup of unpacked brown sugar (145 grams) contains 551 calories and 141 grams of sugars Make sure that the standardized recipe indicates the specific information for each ingredient, such as large or medium eggs, fresh or frozen strawberries, white or brown sugar, and canned sliced peaches in juice, water, or drained. Match this information to the database ingredient.

- **Calculate nutrition information based on the appropriate measure for each ingredient.** If the amount from the Nutrition Facts label or the nutrient database does not match the amount used in the standardized recipe, convert the nutrition information for each ingredient based on the actual amount used. For example, if the standardized recipe uses 2 cups of whole-wheat flour but the database lists the nutrition information for 1 cup, multiply the amount of each nutrient in 1 cup of flour by 2 to determine the nutrition information for the 2 cups used in the standardized recipe. The resources below assist with calculations, such as converting fractions to decimals.
    - Basics at a Glance Portion Control Poster (Institute of Child Nutrition)
    - Table 8: Decimal Equivalents for Fractions of a Unit ("Introduction" section, USDA's *Food Buying Guide for Child Nutrition Programs*)

- **Include any accompaniments served with the food.** The CNS applies to the amount of the food as served, including its accompaniments. The nutrition information for the food and its accompaniments must be added together to determine if the serving complies with the CNS (refer to "Reviewing Foods Served with Accompaniments" in this document). For example, if pancakes are served with syrup, the standardized recipe's nutrition information per serving must include the combined calories, fat, saturated fat, trans fat, sodium, fiber, and sugars for the pancakes and syrup.

2. **Determine the standardized recipe's nutrition information per serving.** Enter the nutrition information for each ingredient (including its accompaniments) and the standardized recipe's number of servings into the CSDE's *CNS Worksheet 9: Nutrient Analysis of Recipes*. This worksheet calculates the standardized recipe's nutrition information per serving.

3. **Determine if the standardized recipe's serving complies with the CNS.** Enter the standardized recipe's nutrition information per serving from CNS worksheet 9 into the appropriate CNS worksheet for the food category. For example, use:

    - CNS worksheet 1 (snacks) such as cookies, muffins, waffles, pancakes, French toast, soft pretzels, breads, and rolls;
    - CNS worksheet 3 for smoothies that contain low-fat yogurt or soy yogurt and fruits/vegetables/100 percent juice;
    - CNS worksheet 4 for fruits and vegetables prepared with added ingredients (e.g., fat, sugar, salt, and other ingredients);
    - CNS worksheet 5 for soups;
    - CNS worksheet 6 for cooked grains prepared with added ingredients (e.g., fat, sugar, salt, and other ingredients), such rice, pasta, and cereal grains, e.g., amaranth, barley, buckwheat, cornmeal, kasha, millet, oats, quinoa, wheat berries, and rolled wheat;
    - CNS worksheet 7 for entrees, such as breakfast sandwiches, pizza, chef's salad, yogurt and fruit parfait, and chicken vegetable stir-fry; and
    - CNS worksheet 8 for non-entree combination foods, such as vegetable egg rolls.

    The CNS worksheets compare the standardized recipe's nutrition information per serving with the CNS and indicate if the serving complies. These worksheets and additional guidance on evaluating foods and beverages are available in the "Guidance and Resources" section of the CSDE's HFC webpage.

Maintain each standardized recipe and its completed CNS worksheet for the annual HFC documentation (due November 30 of each year) and the CSDE's Administrative Review of the school nutrition programs. For easy access, the CSDE recommends storing this information electronically in a computer folder.

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Resources

Basics at a Glance Poster (Institute of Child Nutrition):
https://theicn.org/icn-resources-a-z/basics-at-a-glance/

CNS Worksheets ("Evaluating Foods for CNS Compliance" section of CSDE's Connecticut Nutrition Standards webpage):
https://portal.ct.gov/sde/nutrition/connecticut-nutrition-standards/evaluating-foods-for-cns-compliance#CNSWorksheets

Complying with Healthy Food Certification Module 3: Connecticut Nutrition Standards (CSDE training program):
https://portal.ct.gov/sde/nutrition/healthy-food-certification/hfc-training-program

Complying with Healthy Food Certification Module 4: Evaluating Foods for CNS Compliance (CSDE training program):
https://portal.ct.gov/sde/nutrition/healthy-food-certification/hfc-training-program

Connecticut Nutrition Standards (CSDE webpage):
https://portal.ct.gov/sde/nutrition/connecticut-nutrition-standards

Evaluating Foods for CNS Compliance (CSDE's Connecticut Nutrition Standards webpage):
https://portal.ct.gov/sde/nutrition/connecticut-nutrition-standards/evaluating-foods-for-cns-compliance

Food Buying Guide for Child Nutrition Programs (USDA):
https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs

FoodData Central (USDA):
https://fdc.nal.usda.gov/

How to Evaluate Foods Made from Scratch for Compliance with the Connecticut Nutrition Standards (CSDE):
https://portal.ct.gov/-/media/sde/nutrition/hfc/evaluate_scratch_foods_cns_compliance.pdf

Manager's Corner: Standardized Recipes (Institute of Child Nutrition):
https://theicn.org/resources/176/managers-corner/107624/managers-corner-standardized-recipes.pdf

National Nutrient Database (USDA):
https://ndb.nal.usda.gov/ndb/

On the Road to Professional Food Preparation eLearning: Weights and Measures (Institute of Child Nutrition)
https://theicn.docebosaas.com/learn/course/external/view/elearning/19/weights-and-measures

Requirements for Cafeteria A La Carte Foods and Beverages in HFC Public Schools (CSDE):
https://portal.ct.gov/-/media/sde/nutrition/hfc/cafeteria_requirements_hfc.pdf

Requirements for Competitive Foods in HFC Public Schools (CSDE):
https://portal.ct.gov/-/media/sde/nutrition/hfc/requirements_competitive_foods_hfc.pdf

Requirements for Food and Beverage Fundraisers in HFC Public Schools (CSDE):
https://portal.ct.gov/-/media/sde/nutrition/hfc/fundraiser_requirements_hfc.pdf

Requirements for Foods and Beverages in Culinary Programs in HFC Public Schools (CSDE):
https://portal.ct.gov/-/media/sde/nutrition/hfc/culinary_programs_requirements_hfc.pdf

Requirements for Foods and Beverages in School Stores in HFC Public Schools (CSDE):
https://portal.ct.gov/-/media/sde/nutrition/hfc/school_store_requirements_hfc.pdf

Requirements for Foods and Beverages in Vending Machines in HFC Public Schools (CSDE):
https://portal.ct.gov/-/media/sde/nutrition/hfc/vending_machine_requirements_hfc.pdf

Requirements for Selling Foods and Beverages in Adult Education Programs (CSDE):
https://portal.ct.gov/-/media/sde/nutrition/hfc/adultedhfc.pdf

Resources for Meeting the Federal and State Requirements for Competitive Foods in Schools (CSDE):
https://portal.ct.gov/-/media/sde/nutrition/hfc/resources_federal_state_requirements_competitive_foods.pdf

Standardized Recipe Form for School Nutrition Programs (CSDE):
https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/standardized_recipe_form_schools.docx

Standardized Recipes (CSDE's Crediting Documentation for the Child Nutrition Programs webpage):
https://portal.ct.gov/sde/nutrition/crediting-documentation-for-the-child-nutrition-programs/standardized-recipes

USDA Approved Nutrient Analysis Software:
https://www.fna.usda.gov/tn/usda-approved-nutrient-analysis-software

USDA Recipes for Schools:
https://theicn.org/cnrb/recipes-for-schools/

Weights and Measures (CSDE's Crediting Foods in School Nutrition Programs webpage):
https://portal.ct.gov/sde/nutrition/crediting-foods-in-school-nutrition-programs#WeightsMeasures

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For more information, visit the CSDE's Healthy Food Certification webpage and Connecticut Nutrition Standards webpage or contact the HFC Coordinator at the Connecticut State Department of Education, Bureau of Child Nutrition Programs, 450 Columbus Boulevard, Suite 504, Hartford, CT 06103-1841. This document is available at https://portal.ct.gov/-/media/sde/nutrition/hfc/evaluating_recipes_cns_compliance.pdf.

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