

# Family Consumer Science

## Product Labeling and How to Adapt Recipes for Food Allergies



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**Overview:** This lesson will challenge students to recreate recipes with food allergens in mind. Each group will have to determine where the allergen is and how to adapt the recipe for their client. Students will create the recipe and other students will taste the recipes and identify what change was made and any taste differences, if any are noted.

**Time Needed:** 2-3 class periods with option to do additional work outside of class.

**Standards:**

- FCS-FNL-1. Students will design and demonstrate a nutritious diet.
  - Identify common food allergies and intolerances and their effect on menu planning, meal preparation, and the selection of foods in the marketplace.
- FCS-FNL-9. Students will identify careers in food and nutrition.
  - Identify food and nutrition careers in government, business, media, education, and healthcare sectors and list the educational requirements for each.
  - Analyze how studying food and nutrition now can benefit one in the future.
- FCS-FNW-3. Students will identify the factors that affect food choices and dietary quality.
  - Discuss the influence of health status and health consciousness including medical diets, food allergies and intolerances, preventive health measures, concerns about pesticides and food additives, nutrient content, and organic production on food choices.



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- FCS-FNW-6. Students will demonstrate through communication and reading labels the importance of the Nutrition Facts panel and identify the number of servings per container.
  - Discuss the components of a Nutrition Facts Panel including serving size, servings per container, calories, calories from fat, nutrient amounts, and percentages of the Daily Values.
  - Identify nutrient claims and discuss terms used for energy, fat (meat and poultry), fat and cholesterol (all products), fiber, sodium, and other claims, such as fat free, fresh, good source, healthy, high in, less, fewer, reduced, light, more, and extra.
  - Compare and contrast the legal requirements for labeling packaged foods, functional foods, and dietary supplements. Determine when labeling is mandatory or optional.
  - Know the product information required on a packaged food label, including the product name, net contents, manufacturer name, contact, and ingredient list.

### Objectives:

- Students will understand the most common food allergens and how they affect those with allergies.
- Students will identify ways to adapt recipes for those with food allergies or sensitivities.
- Students will read food labels to determine what allergens may be present.
- Students will find alternatives to the most common food allergens and test recipes to identify suitable substitutions.
- Students will present their new recipes to the class and explain how a food allergen was eliminated in the recipe.

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### Materials:

- Stanford University: The 8 foods that cause most allergies: <https://www.coursera.org/learn/childnutrition/lecture/0uj0b/the-8-foods-that-cause-most-food-allergies>
- University of Nebraska-Lincoln: Food Allergy Research and Resource Program: <https://farrp.unl.edu/informallbig8>
- Food Allergy Research and Education: <https://www.foodallergy.org/common-allergens>
- Nutrition Facts Label: <https://www.accessdata.fda.gov/scripts/InteractiveNutritionFactsLabel/#intro>
- Super Kale Pesto Recipe
- Chef cards (located at the bottom of this lesson)

### Rubric Outline:

- Engage: Students will learn the top eight food allergens.
- Explore: Students will explore food labels and the FDA's labeling requirements.
- Explain: Using the chef cards, teacher will explain that each student will be given the role of a local chef who is serving pesto pasta as the special of the day. They will be notified of a customer with a specific food allergy. They must determine if the recipe will cause a reaction, and if so, must adapt the recipe for the customer.
- Extend: Students can cook the adapted recipe for the class to sample or create a recipe that would include no allergens.



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### Lesson Plan:

- Engage: Students will watch the Stanford University video on food allergens and discuss how these would impact the lives of people living with food allergies.
- Explore: Students will explore the FDA food label resources, either in print or digitally, and understand how these labels should be used to protect those with food allergies.
- Explain: Teacher will explain that each student will be given the role of a local chef who is serving pesto pasta as the special of the day. They will be notified of a customer with a specific food allergy from a customer. They must determine if the recipe will cause a reaction, and if so, must adapt the recipe to for the customer.
- Extend: Students will research the allergen of their customer using the University of Nebraska-Lincoln: Food Allergy Research and Resource Program and Food Allergy Research and Education resources. Students can cook the adapted recipe to share with the class and share information about the avoided allergen. Alternatively, students can create a recipe that includes none of the top eight food allergens.
- Evaluate: Student must correctly identify the food allergen and research viable options to adapt the recipe for the safety of the customer. The teacher may choose to grade as a completion grade or use a rubric to grade.



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### Chef Cards

<p>Your recipe is a kale pesto made with kale, parmesan cheese, pecans, olive oil, garlic, salt, pepper, and lemon juice served over fresh pasta noodles.</p> <p>Your customer has an egg allergy but would like to order the special.</p>	<p>Your recipe is a kale pesto made with kale, parmesan cheese, pecans, olive oil, garlic, salt, pepper, and lemon juice served over fresh pasta noodles.</p> <p>Your customer has a dairy allergy but would like to order the special.</p>
<p>Your recipe is a shrimp kale pesto made with kale, parmesan cheese, pecans, olive oil, garlic, salt, pepper, and lemon juice served over fresh pasta noodles.</p> <p>Your customer has a seafood allergy but would like to order the special.</p>	<p>Your recipe is a kale pesto made with kale, parmesan cheese, pecans, olive oil, garlic, salt, pepper, and lemon juice served over fresh pasta noodles.</p> <p>Your customer has a wheat allergy but would like to order the special.</p>
<p>Your recipe is a kale pesto made with kale, parmesan cheese, pecans, soybean oil, garlic, salt, pepper, and lemon juice served over fresh pasta noodles.</p> <p>Your customer has a soy allergy but would like to order the special.</p>	<p>Your recipe is a kale pesto made with kale, parmesan cheese, pecans, olive oil, garlic, salt, pepper, and lemon juice served over fresh pasta noodles.</p> <p>Your customer has a tree nut allergy but would like to order the special.</p>
<p>Your recipe is a kale pesto made with kale, parmesan cheese, peanuts, olive oil, garlic, salt, pepper, and lemon juice served over fresh pasta noodles.</p> <p>Your customer has a peanut allergy but would like to order the special.</p>	<p>Your recipe is a kale pesto made with kale, parmesan cheese, pecans, olive oil, garlic, salt, pepper, and lemon juice served over fresh pasta noodles with a salmon filet.</p> <p>Your customer has a fish allergy but would like to order the special.</p>