

## **FFA Food Science Product Development Career Development Event Developing a Healthy Afternoon Snack**

**BACKGROUND** For kids, students, and adults many times, an afternoon snack is necessary to relieve the hunger pains between lunch and supper. Often, this involves snacking on cookies, crackers, chips, candies and other ‘not-so-healthy’ snacks. Consumers are demanding convenient, healthy snacks as alternatives to the high fat, high calorie snacks that are readily available. Your team will develop a convenient, healthy afternoon snack that will appeal to teen-agers and young adults.

**OBJECTIVE** Your task is to develop a convenient, healthy afternoon snack that can provide at least one nutrient claim boasting that it is ‘low-fat’, ‘low saturated fat’, ‘low cholesterol’, ‘high fiber’ or ‘low sodium’. Your product should be nutritious and have satisfactory sensory characteristics. In addition, you will attempt to commercialize the product for grocery store use.

Your target nutrient guidelines (for each serving) are:

Total Fat: Less than 12 g

Saturated Fat: Less than 6 g

Trans Fat: 0 g

Protein: At least 15 g

Sodium: Less than 500 mg

Dietary Fiber: At least 2 g

At least 10% of RDI for either Vitamin A or Vitamin C

Calories: Less than 300 calories

**METHOD** With your team, create a food product from the ingredients included in the following table. You may also choose to include additional ingredients. Your team should develop a product name, determine the nutritional value, and prepare a package for your product. The package should include all the required elements of a package (product name, standard of identity, net weight, name and address of processor or distributor, nutrition information, and ingredient list) in their correct position on the package. In the oral presentation, the team will need to be able to explain why they selected each ingredient and the impact of the ingredients on the nutritional value, quality, shelf-life and safety.

Your team will present an oral report (15 minutes – 10 min. to present and 5 min. for questions) to a group of trained judges. The evaluation form attached is how your group presentation will be evaluated. It is important that you have graphics to clearly show your product.

**RULES**

**Your team will need to develop but not prepare your product.** The following table includes suggestions for ingredients you may use. You may also use related ingredients (not listed) as alternates. Select items from the following categories:

<b>Meat and Substitutes</b>	<b>Cheese and Substitutes</b>	<b>Carbohydrate</b>	<b>Vegetables</b>	<b>Sauce</b>
chicken	Mozzarella	bread	onion	mayonnaise
beef	Cheddar	tortilla	bell pepper	mustard
pork	soy-based cheeses	pita	tomato	spread
fish or seafood	tofu	Croissant	green olives	
soy-based meat substitutes		pasta	black olives	
nuts		rice	mushroom	

**EVALUATION**

Product name \_\_\_\_\_

Ingredients \_\_\_\_\_

Preparation time \_\_\_\_\_

**MARKETING PRESENTATION**

Each team member should present at least one of the following aspects of food product development: selection of ingredients, nutritional value, ease of preparation, sensory characteristics.

**COMMERCIALIZATION**

The product that you develop will need to meet all aspects of labeling requirements including principal display panel, nutritional label, and ingredient listing. Your team will be evaluated on this being done correctly.

## RESOURCES FOR DETERMINING NUTRIENT INFORMATION

U.S. Food and Drug Administration:

Nutrition Facts:

<http://www.fda.gov/Food/ResourcesForYou/Consumers/NFLPM/default.htm>

<http://www.fda.gov/food/resourcesforyou/consumers/nflpm/ucm274593.htm>

Food Labeling Guide:

<http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/FoodLabelingGuide/default.htm>

Also look at Part III: Resource Information in the CDE Rules.

## SPECIFIC REQUIREMENTS

- Suitability of product as a healthy afternoon snack
- Ingredients should be listed in order of amounts used in product.
- All required parts of the principle display panel should be present.
- All required elements on the Information Panel
- Correct relative placement of PDP and Information Panel
- Appealing PDP and Creative Character
- Reasonably close nutritional panel
- Ability to answer questions about the product, including reasons for selection of each ingredient.
- All members participate in presentation.

CHAPTER NAME \_\_\_\_\_

<b>CRITERION</b>	<b>POSSIBLE POINTS</b>	<b>POINTS EARNED</b>
Objective met – to develop a healthy afternoon snack	50	
All required parts of the principal display panel (PDP).	50	
All required elements on the Information Panel	50	
Correct relative placement of PDP and Information Panel	50	
Reasonably close nutritional panel	50	
Communication skills/oral presentation (clear, logical, easy to understand, confidence in presentation and the information presented)	50	
Ability to answer questions about the product.	50	
Did all team members contribute?	50	
<b>OVERALL</b>	400	