



# Cookie Creations

2001 Home Baking Association FACS Teacher Award  
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*“While academic excellence often relies on committing facts to memory, parents should encourage their children in the creative application of information. Civilization may be built on a solid foundation, but it flourishes on new ideas.”*

Michael K. Meyerhoff, Ed.D

The Epicenter, Inc., *HEMISPHERE* magazine, p96, January 1977

## INTRODUCTION

Food product development and marketing is an applied science. It requires the integrated application of reading, math, and science, as well as social skills, such as measuring consumer preferences, teamwork, respect, communication, and responsibility.

Developing these interdisciplinary skills can improve individual and family health and students' career success.

*Cookie Creations* is a two-week final project designed to determine if students achieved the **Course Goal**: *Students will create an original cookie applying knowledge acquired from the Family, Foods, and Friends class.*

## OUTCOMES

- Identify five ingredients essential to produce a standard cookie and four possible variables or substitutions
- Manipulate a standard cookie to create a marketable, original cookie
- Analyze and solve production problems created by ingredient innovations
- Design an appealing and acceptable label and package
- Produce a consumer advertisement for the new cookie that raises consumer awareness of, or stimulates them to try, the new product
- Formulate and execute production of the product using a team approach
- Synthesize knowledge gained to respond to the judging panel's questions about the products

## EVALUATION METHOD

- Students had to successfully demonstrate their knowledge and skills used throughout the project
- Evaluation rubrics were used for the product, advertisement, and packaging
- A panel of local professionals in baking and consumer retail were selected to judge the products and packaging
- A take-home essay evaluation was required

## COOKIE CREATIONS

*Mission: Turn a plain cookie into a super cookie. Create packaging and advertising to promote the new product.*

### DAYS 1-2: Establish teams, your product, and package components

**Step 1:** Use one of the two basic cookie recipes we have prepared in the course, or choose your own basic recipe (approved by teacher) as a base to create a new cookie.

### Guidelines:

- Use the list of extra ingredient options to select “add-ins”
- Correctly substitute three ingredients to create a change in taste, fat content, palatability, color or texture, or whole grain content (example: egg whites for whole eggs, whole grain flour for all-purpose, add nuts or chips, butter for shortening)
- Acquire a substitution chart from a reliable source (example: cookbook, [www.homebaking.org](http://www.homebaking.org) Web site, and member links)

- Be creative in your use of spices, sweeteners, flavorings, and special ingredients, such as nuts, candy pieces, and fruit
- Make notes/give amounts next to your new ingredients so you can easily rewrite your new recipe

**Step 2:** Describe what consumer group(s) would be interested in your product. Create packaging and advertising to appeal to them.

### Guidelines:

- List what **must** appear on a food label (see guidelines at [www.nutrition.gov](http://www.nutrition.gov). Go to Food Label section)
- Prepare label to provide: product name, nutrition facts (if technology allows, refer to [www.nal.usda.gov/fnic/foodcomp](http://www.nal.usda.gov/fnic/foodcomp) or use nutrition analysis software if school food service has it available), ingredient list, net weight, appropriate art
- “Extra edge” opportunity: Does your product qualify for a *health claim*, such as “*whole grain*” or “*reduced fat*”? If yes, use it!
- Container/box must be 3-D and made from poster board. Cookies must fit in the container
- Advertisement may be a commercial, newspaper ad, store display, or poster. Be creative, have fun

### DAYS 3-8. Product and package development.

**Step 3:** Do a trial run of your cookie in class. Use the class to analyze and discuss the changes you are making and their acceptability.

Create box/container, label, and advertisement. (Work outside class as needed.)

Make final recipe, cookie, package product, and finalize advertisement.

### DAY 9: Evaluation of product, packaging and advertising.

**Step 4:** Judges will be in the classroom to evaluate each team’s product.

### Guidelines:

- Have project completed
- Prepare your thoughts to answer judges’ questions (example: how you changed product, who is the target consumer, why you packaged and advertised as you did, what you’ve learned, and how you will apply it outside school)
- Dress appropriately for interview
- Think calm! Be enthusiastic about your product

### Day 10: Self-evaluation. (May be take-home.)

Respond to the following questions in writing:

1. Do you feel this was a better test of your knowledge and skills learned in this class than a paper/pencil test? Why or why not?
2. What did you learn from this project?
3. How will you use these skills and knowledge beyond school?
4. What six ingredients were essential to the standard drop cookie used for the base of this project?
5. Describe the best methods for measuring liquid and dry ingredients.
6. What substitutions did your group use in your cookies, and why did you choose each of those substitutions?
7. What research did you have to do to complete this project? Where did you find your answers?
8. Describe each team members’ jobs, how much each person completed, and whether you felt it was an equal division of work. Be specific and honest.

### Award certificates to participants.

#### Invite judges from:

- Local food production plant employees
- Retail bakery employees in local supermarket or bakery
- School Board members
- School staff, food service, administrators
- Advertising firms
- Local media
- Parent association
- Chamber of Commerce

### KNOWLEDGE GAINED AND USED

*“I will use the knowledge of how to work with a partner and team.”*  
– Phillip, 7th grade

*“I used to be a bad cook. I really didn’t know how to cook a lot of food. One thing I have learned is how to crack an egg. Believe it or not, I never knew how until I took your class.”*  
– Chris, 7th grade

*“We would use class experiences to raise a family, teach others, help others, and to make friends. Our cooking skills would be used every day at home...in a company to cooperate.”*  
– Xiong Mee, 8th grade

## Ten Tips for Cookie Success

1. Follow recipe steps carefully.
2. Do not overmix dough — tough cookies may result.
3. Measure ingredients with correct equipment and method. Dry measure: stir, spoon, and level. Liquids in liquid cup on flat surface.
4. Be sure the label reads “margarine” or “butter” and is not a reduced calorie “spread.” Soften butter before mixing, but butter should still hold its shape.
5. Drop equal sized pieces of dough, evenly spaced for even browning and doneness.
6. Place oven racks in center position.
7. Baking sheet pans should not touch each other or oven walls — leave 2-inches space.
8. Preheat the oven to correct temperature.
9. Let baking pans cool before putting more cookie dough on them.
10. Remove cookies from baking sheets with spatula immediately and cool on a wire cooling rack.

Source: Home Baking Association

## Basic Drop Cookie

Makes 5 dozen

- 1 cup shortening
- 1 cup granulated sugar
- ½ cup brown sugar
- 2 large eggs, beaten
- 1 teaspoon vanilla
- 2 tablespoons warm water
- 3 cups all purpose flour
- 1 teaspoon baking soda
- ½ teaspoon salt
- ½ teaspoon baking powder
- 2 cups specialty items\*

1. Preheat oven to 375°F. Assemble ingredients, baking pans, and cooling racks.
2. In a large mixing bowl, cream shortening, granulated and brown sugars, eggs, and vanilla until fluffy. Add water.
3. In a medium bowl, combine flour, soda, and salt. Stir with a wire whisk until well mixed. Add dry ingredients to wet mixture. Stir by hand until well combined.
4. Add specialty items and stir until well distributed in the cookie dough.
5. Drop by teaspoonfuls, 2 inches apart, on an ungreased cookie sheet. Bake for 8 to 10 minutes until golden brown.
6. Remove from pan to cool on wire cooling racks. Store in an airtight container.

Nutrition Facts: One (0.8 oz) cookie of five dozen cookies (made with 1 cup each semi-sweet chocolate chips and chopped walnuts) provides: — 100 calories (50 from fat); 6 g total fat (1.5 g saturated); 5 mg cholesterol; 45 mg sodium; 12 g total carbohydrate (0.5 g fiber, 7 g sugars); 1 g protein; 2% DV iron

### \*Specialty Items:

Chopped nuts (walnuts, pecans, soy, pine, peanuts)  
Chips (chocolate, cinnamon, butterscotch, fruit flavors)

Candy pieces (M&M's, peanut butter pieces, pieces of candy bars, toffee)

Coconut

Dried fruits (raisins, cranberries, cherries, apricots, apples, pears)

Seeds (sesame, poppy, sunflower kernels)

### Substitution Starters: Contest requires at least three substitutions/variations.

Listed are some ingredients to consider for substitutions. Research how to substitute ingredients in a reliable cookbook or at [www.homebaking.org](http://www.homebaking.org).

**All purpose flour** — whole wheat flour; part non-wheat flour (corn, oat, soy, sorghum, rye, wheat germ, bran, finely ground nuts)

**Cereal** — quick-cooking oatmeal; wheat, bran, or corn flakes; crisp rice; o-shaped oat cereal; rice, bran, corn or bran-square cereals

**Cocoa or melted bakers chocolate**

**Flavorings** — almond, vanilla, mint, orange, lemon, maple, anise

**Ground Spices** — cinnamon, nutmeg, allspice, mace, ginger, cardamom

**Shortening** — butter, margarine, vegetable oil, peanut butter, fruit purees

**Sugar** — granulated, brown, powdered, honey, molasses

*“We substituted butter or margarine for shortening because it would taste better...egg whites for whole eggs for less fat and cholesterol.”*

— Kendra and Jocelyn, 8th grade

**Whole egg** — two egg whites or egg substitute

**New Cookie Name:** \_\_\_\_\_

List ingredients and amount

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NOTES: Changes in the standard method of mixing or baking that are needed with the substitutions made:

1)

2)

3)

Source(s) of information: \_\_\_\_\_

**Resource:** [www.homebaking.org](http://www.homebaking.org) — 785-478-3283.

# EVALUATION RUBRICS

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## COOKIES

8	6	4
<b>Appearance</b> Shape: Appropriate Size: Equal Color: Golden brown Aroma: Very appealing Leavening: Nice height	Somewhat irregular Somewhat unequal Done, but pale Okay, but not defined Spread out, thin	Very irregular Unequal Unbaked, doughy Strong or unpleasant Leavening omitted
<b>Texture</b> Moist, melts in mouth Chewy bite or Crisp-tender	Somewhat dry Somewhat tough Somewhat crumbly	Dry Hard Crumbling
<b>Flavor</b> Complementary Pleasant, evenly distributed	Not Acceptable	Under- or over-flavored; unappealing
<b>Substitutions/variations</b> Three or more made Complementary substitutions Appealing	Only one or two variations made Needs work to improve overall taste/appeal	Varied nothing

## ADVERTISEMENT

20	16	12
<b>Spelling/grammar</b> Perfect	One to three errors	More than three
<b>Appealing/attractive</b> Attractive/pleasing eyes/ears	Noticed, okay	Difficult to watch/read
<b>Compelling/memorable</b> Catchy, stays with consumer Makes me want to try	Would not remember unless repeated	Coupon would be needed for me to try
<b>Fits targeted consumer group</b> Catchy for product and buyer	Acceptable tie-in	No fit/inappropriate

## PACKAGING

5	4	3
<b>Shape and construction</b> Well constructed Cookies fit and protected	Not quite stable Cookies could be broken	Falling apart Cookies crumble
<b>Appearance</b> Strong eye appeal, coordinated	Might not notice, okay	Unappealing/dull
<b>Ingredient List</b> Correct sequence, spelling	One or two out of order	Errors-order/spelling
<b>Product Name</b> Compelling/suits product; original	Somewhat original/suitable	Unsuitable to product
<b>Nutrition Facts</b> Prepared nutrition information Applicable health claim (optional)	Provided product weight serving size; number in package.	No information