

4-H Fun with Foods

Level I



4-H Food & Nutrition

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4-H Fun with Foods is an update of Food & Nutrition Have Fun with Foods Phase 1
by Georgia Lauritzen, USU Extension

County Extension Agents

Darlene Christensen, County Extension Agent
Susan Haws, County Extension Agent
Naomi Weeks, County Extension Agent
Debra Proctor, County Extension Agent
Ronda Olsen, County Extension Agent

State 4-H Office

Lauralee Lyons, State 4-H Office
Monica Schruhl, State 4-H Office

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Lesson 3

Cookies: Drop & Bar

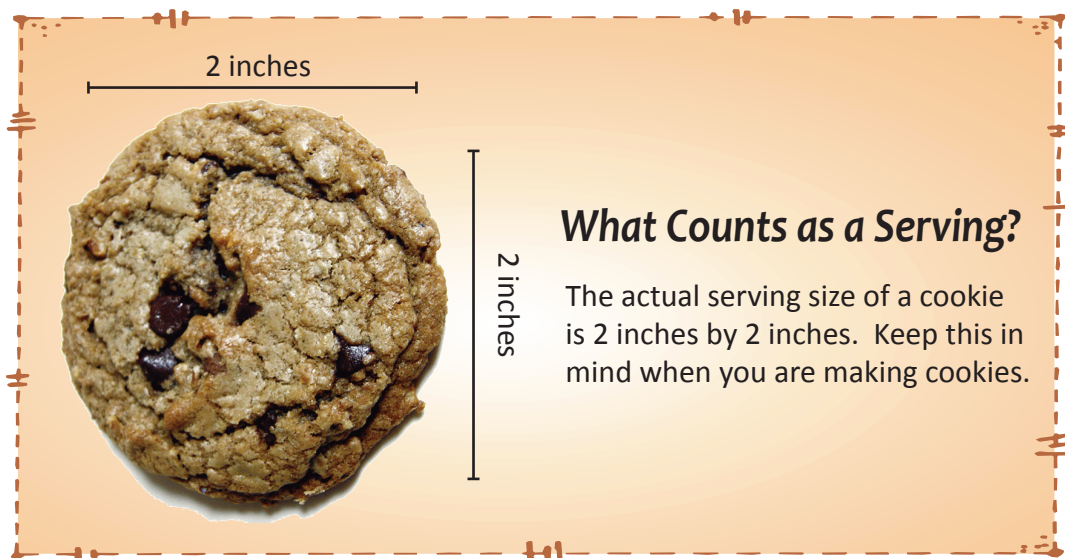
Making cookies can be fun. There are different types of cookies classified as either soft or stiff dough. In this lesson we will make drop and bar cookies, while practicing our skills of: measuring accurately, creaming, mixing ingredients, and properly using the oven.

Drop Cookies - are made from soft cookie dough in which the ingredients are mixed and dropped from two spoons or cookie scoop onto a baking sheet and baked.

Bar Cookies - ingredients are mixed, spread in a pan, baked, cooled, then cut.

Before you Start:

- ✓ Read the whole recipe.
- ✓ Assemble your ingredients.
- ✓ Measure accurately - never guess.
- ✓ Check oven racks and place them in position before you turn on the oven. If baking one cookie sheet at a time, place the rack so the pan will be in the center of the oven to allow even air circulation. Use a broad spatula or pancake turner to lift the cookies from the cookie sheet onto the wire rack to cool.
- ✓ Wash your hands (refer to Lesson 1, for more information, or soaperhero.org.)





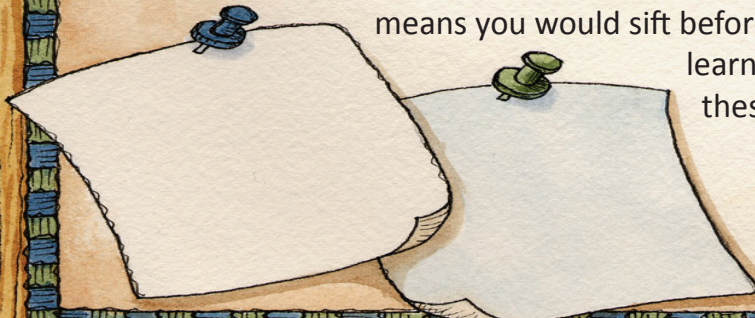
Safety Tip - Using an Oven

- ✓ Make sure an adult is nearby to help you
- ✓ Use oven mitts when taking anything out of the oven
- ✓ Do not touch the racks, door or sides of the oven – they get very, very hot
- ✓ Always remove any lids facing away from you – the steam and heat that escape can burn
- ✓ Do not attempt to carry things that are heavy – ask for help
- ✓ Place items on hot pads so they do not burn countertops
- ✓ Turn off the oven after you have removed all cooking items



Successful Cooking Tips

- ✓ Creaming is a process in which shortening/butter is mixed on medium speed with an electric mixer or by hand until soft. Add sugar and beat until fluffy. Add eggs on at a time and beat until creamy. The purpose of creaming is to incorporate air and ensure that everything is well blended.
- ✓ Sift flour with other dry ingredients so that the leavening agents (yeast, baking soda, and baking powder) and spices are evenly distributed throughout the cookie.
- ✓ Recipes may call for sifting the flour. As flour sits in storage, it becomes compact. Sifting adds air which makes both the flour and final baking product lighter. Sifting may also help to more evenly mix spices and other dry ingredients with the flour. Is it necessary to sift flour for each recipe? Probably not. Be sure to read the recipe to see if it says, “flour, sifted” which means to measure first, then sift, or “one cup of sifted flour,” which means you would sift before measuring. From what you learned in Lesson 1, which of these would use more flour?



Laurie ©

DROP COOKIES

Activity 1: Making Drop Cookies

Goal:

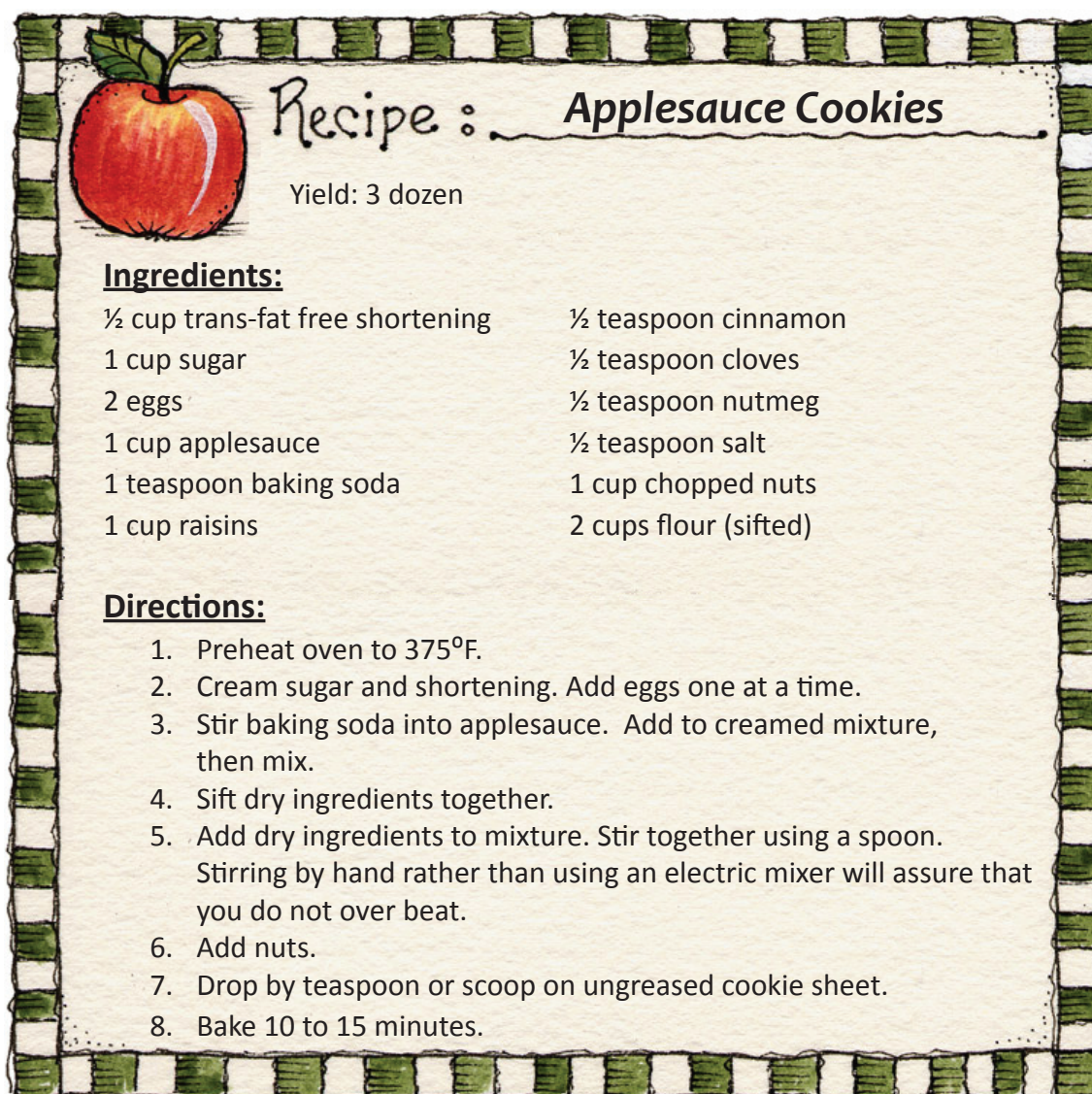
Learn how to properly mix and bake drop cookies.

Materials Needed:

- ✓ Measuring cups and spoons, mixing bowl, electric mixer, baking sheet, spatula/pancake turner, teaspoons/cookie scoop, hot pad, wire cooling rack, oven, and ingredients as listed in recipe.

Directions:

1. Follow recipe to mix ingredients together. Remember to read the directions - do not just put ingredients in a bowl.
2. Drop cookies correctly, by pushing the dough from a spoon using either another spoon or spatula. The dough is dropped by rounded or heaping teaspoonfuls onto the baking sheet. You may also select to use a cookie scoop which will create uniform sized cookies. If the baking pan is warm, the cookie dough may spread too much. Allow 3 inches between each cookie.



Recipe : Applesauce Cookies

Yield: 3 dozen

Ingredients:

½ cup trans-fat free shortening	½ teaspoon cinnamon
1 cup sugar	½ teaspoon cloves
2 eggs	½ teaspoon nutmeg
1 cup applesauce	½ teaspoon salt
1 teaspoon baking soda	1 cup chopped nuts
1 cup raisins	2 cups flour (sifted)

Directions:

1. Preheat oven to 375°F.
2. Cream sugar and shortening. Add eggs one at a time.
3. Stir baking soda into applesauce. Add to creamed mixture, then mix.
4. Sift dry ingredients together.
5. Add dry ingredients to mixture. Stir together using a spoon. Stirring by hand rather than using an electric mixer will assure that you do not over beat.
6. Add nuts.
7. Drop by teaspoon or scoop on ungreased cookie sheet.
8. Bake 10 to 15 minutes.



Recipe : Oatmeal Cranberry Cookies

Yield: 3 dozen

Ingredients:

½ cup butter or margarine, softened	¾ cup sugar
1 egg	1 teaspoon vanilla
1 cup flour	½ teaspoon baking powder
¼ teaspoon salt	⅛ teaspoon baking soda
1 cup quick oats	½ cup raisins
½ cup chopped fresh cranberries or frozen cranberries	½ tablespoon orange zest
	6 ounces vanilla chips

Directions:

1. Preheat oven to 375°F.
2. Cream butter and sugar. Add egg and vanilla, beat well.
3. Mix flour, baking powder, salt, and baking soda. Add to creamed mixture.
4. Stir in remaining ingredients.
5. Drop by rounded teaspoons, 2 inches apart, on greased sheet.
6. Bake for 10 minutes, or until edges start to brown lightly.
7. Cool on wire racks.

Judge your Drop Cookies:

The crust should be thick and tender. The texture should be soft and moist. To prevent drop cookies from spreading too much, chill the dough. Learn to judge your product. When this cookie is baked, it should have a mound shape.

GOOD QUALITIES
Outside Appearance:
Fairly uniform mound shape
Color - delicately brown exterior
Inside appearance and texture: soft & tender

POOR QUALITIES	LIKELY CAUSED BY
Irregular size	Improper dropping of dough
Dark crust edges	Over baking (baking sheet too large for oven)
Too dry-hard	Over baking
Doughy	Under baking
Excessive Spreading	Dough too warm Dropped on hot baking sheet Incorrect oven temperature

BAR COOKIES

Activity 2: Making Bar Cookies

Goal:


Learn how to properly mix and bake bar cookies.

Materials Needed:

- ✓ Measuring cups and spoons, mixing bowl, rubber scraper, electric beater/mixer, cake pan hot pad, oven, and ingredients as listed in recipe.

Directions:

- ✓ Follow directions closely in selected recipe to make bar cookies.



Recipe : Sauce Pan Brownies

Yield: 16 bars

Ingredients:

1 cup sugar	2 eggs, beaten
¼ cup vegetable oil	2 (1 ounce) squares unsweetened chocolate or 4 tablespoons of cocoa melted with margarine.
½ cup sifted flour	½ cup chopped nuts
2 tablespoons of butter	
1 teaspoon vanilla	

Directions:

1. Preheat oven to 350°F.
2. Melt chocolate in saucepan or microwave. Cool. Transfer to large mixing bowl using a rubber scraper. Notice how much cleaner a rubber spatula works rather than using a spoon.
3. Add sugar, oil, beaten eggs, and vanilla. Beat until smooth.
4. Add flour. Beat until smooth.
5. Stir in nuts.
6. Spread in greased 8 x 8 inch pan. Bake about 30 minutes.
7. Cool. Cut into bars.

The recipe card has a decorative border of alternating green and white squares. It includes a drawing of a red apple with a green leaf.



Recipe : Smart & Yummy Cookies

Yield: 3-4 dozen

Ingredients:

¾ cup packed brown sugar
 2 egg whites, lightly beaten
 2 tablespoons fat-free milk
 1 ½ cups flour
 1 teaspoon ground cinnamon
 3 cups oats (old fashioned or quick, uncooked)
 1 cup diced dried mixed fruit, raisins, or dried cranberries

½ cup sugar
 2 tablespoons vegetable oil
 2 teaspoons vanilla
 1 teaspoon baking soda
 ½ teaspoon salt (optional)
 1 8-ounce container vanilla or plain low-fat yogurt

Directions:

1. In a large bowl, combine the sugars, yogurt, egg whites, oil, milk and vanilla. Mix well.
2. In a medium bowl, combine flour, baking soda, cinnamon, and salt; mix well.
3. Add yogurt mixture; mix well. Then stir in oats and fruit.
4. Spread dough onto bottom of ungreased 9x13 inch pan and bake in a preheated 350° oven for 28-32 minutes or until lightly brown.
5. Cool completely on wire rack.
6. Cut into bars and store in a covered container.

Judge your Bar Cookies:

Uniform in size with smooth cut edges. Crust tender, texture of bars moist and rich. How do your cookies rate?

GOOD QUALITIES
Outside Appearance:
A uniform, well cut shape
Inside appearance and texture:
Thin, delicate crust
Reasonably uniform texture
Rich, moist, and tender

POOR QUALITIES	LIKELY CAUSED BY
Crumbles when cut	Cutting bars when too warm
Dry, crumbly	Over baking
Hard crusty top	Over mixing
Doughy	Underbaking

Activity 3: Fat & Sugar Discovery

NOTE: This may be a good activity to do while the cookies are baking.

Goal:

Explore how much fat and sugar are in common treats.

Materials Needed:

- ✓ Commercial candy, muffins, cakes or other treats with nutrition information listed on label
- ✓ Sugar
- ✓ Shortening
- ✓ Teaspoon size measuring spoon
- ✓ Plastic placemat, plate or cutting board

Directions:

1. Locate nutrition information on the treat label.
2. Be sure to notice the serving size and measure out the correct amount of sugar and fat for the amount of treat that is usually eaten at one time!
3. Measure out 1 teaspoon of sugar for every 4 grams of sugar listed on the label, forming a pile next to the treat (16 grams = 4 teaspoons sugar).
4. Measure out 1 teaspoon of shortening for every 4 grams of fat listed on the label, forming a pile next to the treat.
5. How much fat and sugar are in each treat? Discuss.
6. Repeat with other treats and compare fat and sugar content, if desired.



Safety Tip: Raw Eggs & Uncooked Cookie Dough

Do not eat uncooked cookie dough. Foods containing raw eggs, such as homemade cookie dough, homemade ice cream, cake batter, homemade mayonnaise, or eggnog carry Salmonella risks. Salmonella may lead to food poisoning. Use care when handling raw eggs. So why can you eat cookie dough ice cream, and commercial cookie dough? Pasteurized eggs are used in these products, which makes the raw dough safe.

Nutritional Tidbit – Saturated Fats

Although it's healthy to limit intake of saturated fats such as butter and shortening, they do have a place in baking.

Fat is a major source of energy for the body and is important for proper growth, development, and maintenance of good health. As a food ingredient, fat provides taste, consistency, and stability and helps us feel full.

Margarine (a hydrogenated or trans fat) was developed to increase the shelf life of foods. Hydrogenation is the process of taking an oil (soybean, canola, olive oil) and altering its chemical structure to make it more solid at room temperature. This alteration is good for storage life of the food product, but the portion sizes of these products should be kept to the MyPyramid guidelines to help keep your heart and cardiovascular system healthy.

Spreadable butter or trans fat free margarine are good alternatives to regular butter or margarine, in moderation. These products usually have air and water added which will alter your recipe. For best results in baking, use margarine, butter or stick spreads containing at least 70% vegetable oil (this will be indicated on the label).

What have you learned?

- ✓ What did you learn?
- ✓ Next time you go to the grocery store, check out how many grams of fat are in different types of cookies, or other foods you enjoy. See if any of them surprise you.
- ✓ What happened that you didn't expect would happen? If you had it to do over again, what would you do differently?
- ✓ Based on your analysis, how could you do even better next time?
- ✓ How will you use what was learned? Share ideas for preparing foods at home and what you may do based on what was learned.

Recipe Sources

- ✓ 4-H Fun with Foods by Georgia Lauritzen, USU Extension
- ✓ Summit County, Utah State University Extension office

References and Resources:

- ✓ Cooking Basics: Baking Cookies
- ✓ University of Missouri Extension
<https://muextension.missouri.edu/stcharles/celebratenl/2009/nov/cookies.pdf>

LESSON 3: FOR THE RECORD

Cookies: Drop & Bar

MEETING

Date _____

Foods I prepared or helped prepare _____

I demonstrated _____

This lesson taught me the following skills _____

Some of the activities I tried _____

Type of Food Prepared	# Times Prepared	To Whom Served	Hours Spent	# Served	Cost