

## "Food for Thought" The Cookie Genetics Lab

What types of questions are asked by those trying to solve "the silver box" mystery of life on Earth? As explorers traveled and returned with great numbers of different organisms, many questions must have been posed as to the significance of the great variety and about how it might have occurred. How could this diversity mesh with the idea of "like begetting like"? Was change a part of the picture, and if so, how did it occur? Over the next week we will be asking and beginning to address questions such as these. We will start with a simple example, but something with which we are all familiar-COOKIES!

Procedure: You will be assigned one of the following recipes. Each recipe makes several dozen cookies. Share with your family and/or friends, but bring one dozen to class on the day the assignment is due. Also, answer the lab questions to bring along with the cookies.

### **Recipe # 1: Chocolate Chip Cookies**

2 1/4 cups all purpose flour  
1 teaspoon baking soda  
1 teaspoon salt  
1 cup margarine or butter  
3/4 cup sugar  
3/4 cup firmly packed brown sugar  
1 teaspoon vanilla  
2 eggs  
1 package (12 oz.) chocolate chips

Preheat oven to 375 F. Beat together margarine, sugar, brown sugar, and vanilla until creamy. Beat in eggs. Combine flour, baking soda, and salt. Gradually add to margarine mixture. Stir in chocolate chips. Drop by rounded teaspoonfuls onto ungreased cookie sheets. Bake for 8-11 minutes.

### **Recipe #2: Oatmeal Raisin Cookies**

1 1/2 cup all purpose flour  
1 teaspoon baking soda  
1 teaspoon salt  
1 teaspoon cinnamon  
1 teaspoon nutmeg  
1 1/4 cup margarine or butter  
1/2 cup sugar  
3/4 cup firmly packed brown sugar  
1 teaspoon vanilla  
1 eggs  
3 cups oats  
1 cup raisins

Preheat oven to 375 F. Beat together margarine, sugar, and brown sugar until creamy. Beat in egg and vanilla. Combine flour, baking soda, salt, cinnamon and nutmeg. Gradually add to margarine mixture. Stir in oats and raisins. Drop by rounded teaspoonfuls onto ungreased cookie sheets. Bake for 8-11 minutes.

### **Recipe # 3: Oatmeal Chocolate Chip Cookies**

1 1/2 cup all purpose flour  
1 teaspoon baking soda  
1 teaspoon salt  
1 1/4 cup margarine or butter  
1/2 cup sugar  
3/4 cup firmly packed brown sugar  
1 teaspoon vanilla  
1 eggs  
3 cups oats  
1 package (12 oz.) chocolate chips

Preheat oven to 375 F. Beat together margarine, sugar, and brown sugar until creamy. Beat in egg and vanilla. Combine flour, baking soda, and salt. Gradually add to margarine mixture. Stir in oats and chocolate chips. Drop by rounded teaspoonfuls onto ungreased cookie sheets. Bake for 8-11 minutes.

### **Recipe #4 Snickerdoodles**

2 3/4 cup all purpose flour  
2 teaspoons cream of tartar  
1 teaspoon baking soda  
1/2 teaspoon salt  
1 cup shortening, margarine or butter  
1 1/2 cup sugar  
2 eggs

Preheat oven to 350 F. Beat together margarine and sugar. Beat in egg. Combine flour, cream of tartar, baking soda, and salt. Gradually add to margarine mixture. Roll into balls the size of walnuts. Roll into a mixture of 3 tablespoons sugar and 2 teaspoons cinnamon. Bake 12-15 minutes.