Food Science – Drop Sugar Cookies

Ingredients

- 2 ½ cups Flour
- ½ tsp Baking Soda
- ¾ tsp Salt
- ½ cup Butter
- ½ cup Shortening
- ***1 cup Sugar***
- 1 tsp Vanilla
- 1 Egg
- 2 Tbsp Milk

Directions

- Sift together the flour, soda, and salt
- Cream together butter, shortening, sugar, and vanilla
- Add egg
- Cream until mixture is fluffy
- Stir in dry ingredients until mixture is smooth
- Blend in milk
- Form dough into small balls and place on an ungreased cookie sheet
- Bake in a 400-degree oven for 8 minutes

Lab Variable

For this lab, each kitchen will be using a different sugar/sugar substitute. The purpose of the lab is to evaluate to role and property of sugar when baking.

Sugar has many sensory and chemical reactions with heating. The Maillard Reaction is a browning that occurs with the combination of carbohydrates and protein (sugar and egg). This gives the cookies a golden color. As sugar heats, it melts which will add moisture to the cookie and allow the cookie flatten out during the baking process. One of the main characteristics of sugar is the sweetness. All sugar substitutes are not created equal, some do not hold up during the heating process.

Evaluation – With the different cookies we will be evaluating the color of the cookies, if they flattened during baking, the moisture or dryness of the cookie, the density of the cookie, and the sweetness.