

# Eggs, Egg Function Lab, Day 4

## Summary

A comprehensive six day unit on the study of eggs, their structure, sizes, grades, nutritional value, functions in recipes, preparation techniques, and storage guidelines.

## Main Core Tie

Food And Nutrition

[Strand 4 Standard 2](#)

## Time Frame

1 class periods of 90 minutes each

## Group Size

Small Groups

## Materials

Handouts:

Properties and Functions of Egg Lab

Egg Crossword Puzzle

Ingredients needed to prepare each of the recipes for one class:

Meatballs:

1 1/2 lbs. ground beef

2 eggs

1/2 tsp. salt

1/4 tsp. pepper

1 tbs. water

1/2 cup bread crumbs

3 tbs. parmesan cheese

1/4 cup chopped onion

1/2 cup catsup

1/2 cup brown sugar

1/2 cup seasoned vinegar

1 tbs. prepared mustard

Tapioca Fluff Pudding:

1/2 cup sugar

1/2 cup quick-cooking tapioca

1/4 tsp. salt

4 cups milk

3 eggs

1 1/2 tsp. vanilla

Maltaise Sauce over Broccoli:

3 egg yolks

1 tbs. lemon juice

1 tbs. orange juice

pinch salt

2 tbs. butter

2/3 cup butter

2 - 4 tbs. orange juice  
orange peel  
bunch broccoli

Thumbprint cookies:

1 cup shortening  
1/2 cup brown sugar  
2 eggs  
1 tsp. vanilla  
2 cups flour  
1/2 tsp. salt  
1 1/2 cups nuts

jelly or jam

Cheese Souffles:

6 eggs  
4 tbs. butter  
4 tbs. flour  
1/4 tsp. salt  
f.g. pepper  
1 cup milk  
1 cup cheese  
1/4 tsp. cream of tartar

Chocolate Meringue Cookies:

3/4 cup shortening  
1/2 cup sugar  
1 1/2 cup brown sugar  
2 eggs  
1 tsp. salt  
1 tsp. baking powder  
1/4 tsp. baking soda  
2 cups flour  
1 tbs. water  
1 tsp. vanilla  
1 cup chocolate chips  
1/2 cup nuts

Coconut Meringue Bars:

1/3 cup shortening  
1 cup sugar  
2 eggs  
1 1/2 cups flour  
1 tsp. baking powder  
1/2 tsp. salt  
2 tbs. milk  
1/2 tsp. vanilla  
1/2 tsp. lemon juice  
1 cup brown sugar  
1/2 tsp. vanilla  
2/3 cup coconut  
1 cup nuts

The teacher needs to have a good understanding and knowledge of eggs, how to use and prepare them in a recipe and know the different functions eggs have in cooking.

### Student Prior Knowledge

How to use and prepare eggs in recipes and understand what the function eggs have in a recipe.

### Intended Learning Outcomes

The student will be able to identify the use and function of the egg in selected recipes and then practice cooking skills by preparing the recipes.

### Instructional Procedures

Hand out the Lab Assignment, "Properties and Functions of Egg Lab" to each students. Read the directions and explain to the students how eggs can be used in recipes as a binder, thickener, emulsifier, coat foods, and as a leavening agent in the preparation of foods.

Assign each group a recipe to prepare for the class. Watch the time so that each of the foods will be done so the class can evaluate all of the groups recipes according to the evaluation form on the back for appearance, color, texture, flavor and identify how the eggs were used in the recipe. Then write a conclusion on what they learned from the day's experience.

For the meatballs, you may want to give them 2 lbs. of ground beef instead of 1 1/2 lbs. The students will form the meatballs in a 1-inch ball and place them on a cooling rack on top of a jelly roll pan and bake in the oven. Prepare the sauce and pour over the meatballs when done.

For the tapioca pudding, have each group bring to the unit preparing the pudding a 10 oz. custard cup. The group will prepare the pudding according to directions and pour into each unit's custard cup. Place on a jelly roll pan and refrigerate. Serve each unit's pudding in their own custard cup.

For the Maltese Sauce over Broccoli, Prepare and steam broccoli allowing enough time for it to cook. Don't start the maltese sauce too soon as it needs to be stirred constantly to prevent curdling.

For the thumbprint cookies, double recipe for at least 2 dozen cookies. Chop nuts very fine.

For the Cheese Souffles, have each group bring to this group their own 10 oz. custard cup. Prepare a cheese sauce according to directions, then fold in egg whites. Pour souffle into the custard cups one for each unit. Bake and serve to each of the units. This takes a little longer to prepare and to bake so they need to hustle to get it completed on time.

For the chocolate meringue cookies, be sure the students read the directions completely adding the proper amounts of brown sugar when called for in recipe.

For the coconut meringue bars, you could double for larger portions.

As the students are finishing and cleaning up, they can work on Egg crossword puzzle for review.

Identify a time when all of the food needs to be completed. Serve the food buffet style and explain to class what everything is and how the eggs were used in the recipe. Allow enough time for the students to eat and evaluate each of the foods prepared and cleanup before leaving.

### Authors

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