**Youth Explore Trades Skills Cook**

# Emulsified Dressings

## Description

Students will be introduced to the science of emulsifiers and how they apply to mixing two unmixable ingredients to create a mayonnaise. Students will identify the proper proportions of mayonnaise ingredients and will create a mayonnaise using a whisk. They will also learn how to fix a broken mayonnaise as well as identify food safety issues when making and storing a mayonnaise.

## Lesson Objectives

Students will be able to:

* demonstrate the proper method for making a mayonnaise by hand using a whisk
* identify the role of the ingredients needed to make a mayonnaise
* describe how to fix a broken mayonnaise
* show how to safely store mayonnaise for future use, and
* demonstrate correct kitchen safety procedures and techniques.

## Assumptions

* Students have received orientation on the subject of kitchen and food safety.
* The teacher will be familiar with correct mayonnaise recipe procedures, using appropriate resources.
* Workstation Set-up and Introductory Knife Skills Activity Plans have been successfully previously completed.
* The teacher will demonstrate the dish to be prepared and all students will have a copy of the recipe.
* The teacher will have the flexibility to choose the recipe based on resources, time, and physical space.

## Safety Considerations

Students will practise proper use of personal protective equipment (PPE) at all times.

**Oil spills must be cleaned up immediately with an approved cleaner to avoid any slips or falls.**



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## Terminology

**acid**: Ingredients with high acid content (pH 0 to 4.0), such as vinegar and citrus juice, do not support the growth of bacteria. Acidic ingredients are typically sour-tasting.

**emulsion**: An emulsion is a mixture of two or more ingredients that do not naturally mix.

**emulsifier**: An emulsifier is an ingredient that is used to stabilize an emulsion; it is an ingredient that enables two normally unmixable ingredients to mix.

**emulsify**: To emulsify is to combine two normally unmixable ingredients to create one solution.

**mayonnaise**: A mayonnaise is a stable emulsion of oil, acid, and an emulsifier used as a condiment or dressing.

**reconstitute**: When the ingredients in a mayonnaise separate (break), reconstituting refers to following a procedure to emulsify the ingredients again.

**season**: To season is to enhance and amplify a food’s flavour in order to maximize the pleasure of the palate.

**yolk**: The yolk is the yellow part of an egg; it acts as the emulsifier in a standard mayonnaise recipe.

## Estimated Time

2 70-minute classes, depending on the amount of labs chosen for this lesson

## Recommended Number of Students

Up to 24

## Facilities

Home Economics teaching lab and/or Culinary Arts teaching kitchen

## Resources

Draz, John, and Christopher Koetke. *The Culinary Professional*. 3rd ed. Goodheart-Willcox, 2017. Pages 298–317.

Gisslen, Wayne. *Professional Cooking for Canadian Chefs*. 8th ed. John Wiley & Sons, Inc., 2014. Hoboken, New Jersey.

Labensky, Sarah, Alan Hause, and Priscilla Martel. *On Cooking*. 7th Canadian ed. Pearson Canada, 2017

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# Demonstrating Skills And Knowledge

## Procedure

### Day 1

* The teacher will introduce the class to the ingredients, methods, techniques, and science behind the preparation of mayonnaise using desired methods and materials.
* The teacher will demonstrate the mayonnaise recipe. The base mayonnaise may then be served on its own or turned into a secondary dressing such as a ranch, Caesar, or chipotle dressing.
* It is also a good idea for the teacher to purposely break the mayonnaise and demonstrate the process of reconstituting the sauce.

### Day 2

* Students will use their recipes and create the mayonnaise demonstrated by the teacher. Students may all make the same dish(es), or the teacher may assign various recipes to different groups.
* As students are cooking, the teacher will observe and assist when necessary.
* As students complete the dish, they will present it to the teacher for both visual and tasting assessment before consuming or packaging their final product.

## Evaluation Guidelines

If only teaching the emulsified dressings unit as theory, a summative and/or formative assessment will be conducted using a quiz.

For the lab, students will receive a formative evaluation on:

* positive participation in cooking labs
* observational assessment during the lab, and
* whether the final product meets outlined and demonstrated standards.

## Extension Activities

This activity can be adapted in the following ways:

* Discuss international cooking.
* Add to other modules to complete or complement their results.
* Discuss nutritional information.
* Store completed mayonnaise and use as part of a future lab.

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