

**FL ProStart Teachers Workshop: Modernist Techniques and Tapas.**

Friday, June 17, 2022, With  
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**Video Resources:**

1. What is Sous Vide: <https://www.chefsteps.com/activities/what-is-sous-vide>
2. Sous vide consistency: <https://www.chefsteps.com/activities/why-sous-vide-consistency>
3. How to use a Siphon: [https://www.youtube.com/watch?v=\\_7nD3Pze8A8](https://www.youtube.com/watch?v=_7nD3Pze8A8)

**Recipe Resources:**

1. Carbonate Grapes: <https://www.youtube.com/watch?v=F3sONzIQM1o>
2. Carbonate grapes <https://www.chefsteps.com/activities/carbonated-fruit--2>
3. 10-minutes Cake: <https://www.youtube.com/watch?v=vTay7lExdns>
4. Hollandaise: <https://www.youtube.com/watch?v=6iOba4LcZHI>

# Introduction to Modern Techniques

“One of the lessons of modernism, in all fields, is that to break with the past you first have to understand it.”

## Description

What exactly *is* modernist cuisine? In short, it's a buzzword—the latest term used to describe an innovative and avant garde style of cooking. First popularized by Ferran Adria (the "foam guy") at his restaurant El Bulli, modernist cuisine has since become known the world over. Before Adria, the techniques used in modernist cuisine were housed under the umbrella of *molecular gastronomy*: a scientific discipline that studies the chemistry of food. Great minds such as Nicholas Kurti, Herve This and Harold McGee made tremendous strides in this field, ultimately inspiring chefs like Adria, Heston Blumenthal, and Grant Achatz to incorporate scientific methods into their cooking. Thus, modernist cuisine was born.

Beyond the foam, sous-vide and reverse spherification, modernist cooking is really about examining ingredients and asking, "What makes a carrot good?" and "How I make the good part of a carrot better?" Technology has enabled us to find the precise time/temperature ratio that produces a carrot more tender, sweet and delicious.

## Assumptions

- Students have received orientation on the subject of kitchen and food safety.
- The teacher will be familiar with and will utilize correct knife skill techniques using appropriate resources.
- The teacher will provide a variety of ingredients for knife cutting activity.
- The facility will supply the correct knives and equipment required to complete the activity.

## Safety Considerations

- Ensure the use of required personal protective equipment.
- Practice safe knife handling and use.
- Use correct knife cleaning procedures.
- Ensure the proper sanitizing and storage of knives upon completion of the activity.

# Vacuum compressing

Vacuum compressing fruits and vegetables is a popular modernist technique that can give many plant foods an attractive translucent appearance and a pleasant, surprising texture.

This technique exploits the ability of a vacuum chamber to reduce surrounding pressure, which causes air and moisture within the plant tissue to rapidly expand and rupture structures within the food. When surrounding pressure is restored to a normal level, the labyrinth of air-filled spaces collapse. As a result, light tends to pass through the food rather than being scattered and diffused, which is why vacuum-compressed plant foods appear translucent.

Causing the porous structure of a plant food to collapse also imparts a somewhat dense, toothsome texture that can give a familiar ingredient, such as watermelon, an entirely new appeal.

When vacuum compressing plant foods, it's helpful to expose as much surface area as possible. Relatively fragile ingredients can be cut thick, and they will still fully compress. But for tough or durable ingredients, such as an apple or a pear, leaving them too thick will prevent the tissue far beneath the surface from being compressed.

## Sous Vide

**Sous vide** (French for 'under vacuum'), also known as **low temperature long time (LTLT)** cooking, is a method of cooking in which food is placed in a plastic pouch or a glass jar and cooked in a water bath for longer than usual cooking times (usually 1 to 7 hours, up to 72 or more hours in some cases) at a precisely regulated temperature.

Sous-vide is physically practical as the technique utilizes water as a medium of applying a precise temperature to the product; water is the best conductor of heat. In order to do so, one needs to protect the product so that it does not lose its delicate qualities and that is why a food-grade plastic pouch is utilized. A vacuum is applied to the product in the bag so that air does not get trapped between the bag and the product, which could prevent heat from reaching the product during the cooking process.

## Advantages

- Enhance flavor
- Retain color
- Maintain, improve tenderness
- Retain natural juices

## Why Sous Vide

### Consistency

- Because sous vide affords precise temperature control, results can be repeated with ease.

### Temperature Control

- With traditional cooking techniques, temperature control is tricky. Sous vide makes it possible to be very specific about the degree of doneness that you prefer.

### Avoid Over cooking

- Sous vide cooking food at the temperature you've selected, and waiting until the center of the food reaches equilibrium with that temperature avoids another common source of inconsistency: having the food overcook after you've stopped the cooking. This happens because with other cooking techniques, the surface of the food is nearly always much hotter than the core temperature, and thus, it's critical to time things correctly and allow for the inevitable cooling of the surface and increasing temperature at the center.

### Portion control

- Consistency comes in other forms too: portion size, product quality, healthfulness, and food hygiene—all important whether you're cooking in a busy restaurant or at home for your family and friends.

## Siphons

High-end whipping siphons have three main applications: foaming, carbonating, and rapid infusion. And you can use rapid infusion to quickly create foods that traditionally take a long time to make. Think kimchi and other pickled vegetables, cold-brewed coffee, even flavorful bitters for your cocktails. Suddenly feel the urge to quit your job and start a bespoke bitters company in your garage

## Smoking Gun

You can add smoke to anything, but some foods are better than others: This technique works best on foods that are able to retain moisture or fat on the surface. So, while raw or cooked meats will hold smoke, it's best to add smoke to cooked vegetables. (Example: root vegetables that have been tossed in oil before roasting, or broccoli that has been steamed.)

For best results with proteins, allow them to rest uncovered in the refrigerator first. They will develop a thin skin—called a pellicle—that is tacky enough to trap and hold the smoke flavors and aromas.