What follows are the American Culinary Federation definitions of six cooking techniques. While not all encompassing, almost all cooking techniques are derived from the following six methods:

1) **Sautéing:** The purpose of sautéing is to cook food quickly in order to minimize water loss and vitamin destruction, yet maximize browning, and flavor development. The juices released during cooking form the basis of a sauce made in the same pan and served with the sautéed item.

The food is cut into small pieces, (i.e. cutlets, steaks), to optimize the amount of surface area exposed to the heat. The heat should be set fairly high to allow browning to take place and flavor to develop. Use a small amount of fat in the pan to keep the food from sticking and to act as a conductor for heat, (also called the cooking medium). Add the fat to the pan after the pan has heated up; heating cold oil in a cold pan will never get as hot as heating the pan first.

The importance of sautéing small portions cannot be overemphasized. If too much food is placed in the pan at one time, the surfaces do not brown properly. Instead only the water inside the food is heated; this heated water expands and leaches out into the pan. The food which was to be sautéed is now stewing in its own juices.

Sautéing a small amount of food in a small amount of fat over high heat will sear the outside of the food so that the water will remain inside the food and produce the desired results.

The sauce serves three purposes: **1)** it captures the foods flavor that is lost during cooking; **2)** it introduces additional flavors (an important factor because tender foods have a delicate flavor); **3)** it adds moisture, which counteracts the dryness resulting form the sautéing process.

## SAUTÉING:

**1.1)** Sauté the item on both sides in a hot pan and hot oil until it is properly browned.

**1.2)** Remove the main item from the pan, finish cooking in the oven if necessary.

**1.3)** Sauté garlic, shallots etc. for the sauce.

**1.4)** Deglaze the pan.

**1.5)** Add the liquid for the sauce.

**1.5)** Reduce the sauce.

**1.6)** Add the finishing ingredients.

**1.7)** Adjust the seasoning to taste.

**1.8)** Return the main item to the pan to reheat.

**1.9)** Monte au beurre, if desired.

2) **Braising:** braising takes place at lower temperatures than sautéing, and the pieces of meat and vegetables are much larger. This cooking method is most appropriate to, but not limited to, tougher pieces of meat. When braising, the meat is first seared in hot fat. This prevents the loss of water and flavor during the cooking process. It also serves to brown the outside of the meat and to form compounds that will determine the final flavor of the dish.

The meat used is often from an older animal, or from what is termed "an inferior cut" of meat. These cut contain more connective tissue that can only be dissolve by long, slow cooking with moist heat.

Once the meat has been seared and browned, liquid, vegetables, and usually a tomato product are added. The pot is then covered and brought up to approximately 210°F in a slow oven. The moist heat is drawn completely into the piece of meat. It is allowed to stay there until the connective tissue that holds the muscle fibers together dissolves/"fork tender".

During this exposure to moist heat, the proteins which make up the muscle fibers are unwinding or denaturing a bit. When the process is complete, the connective tissue has melted into the liquid and will give the sauce made from the braising liquid a gelatin shine. The meat will be very tender and juicy. The flavors introduced throughout the cooking process will be successfully married.

**BRAISING:**

**2.1)** Sear the main item on all sides in hot oil.

**2.2)** Remove the main item.

**2.3)** Add the mirepoix and sweat it.

**2.4)** Add the roux, if it is being used.

**2.5)** Return the main item to the bed of mirepoix in the pot.

**2.6)** Add the liquid (should come 2/3 of the way up the main item).

**2.7)** Bring it to a simmer over direct heat.

**2.8)** Cover; transfer to a slow oven and cook until fork tender.

**2.9)** Add sachet d'épices or bouquet garni and garnishes at appropriate times.

**2.10)** Remove the main item and keep it warm.

**2.11)** To prepare the sauce: strain/reduce/thicken/purée/garnish-braising liquid as desired.

**2.12)** Slice or carve the main item and serve it with the sauce.

3) **Grilling/broiling:** these two cooking methods are really the same, with the only difference being gravity. In broiling, the heat source is above the food; in grilling the heat source is located below the food. Both methods depend on transfer of heat through the air in order to brown and cook the food. The major flavor compounds in broiled or grilled foods are due to the browning of the food, and any marinade/seasoning used prior to cooking.

Broiling and grilling are dry heat cooking methods. They should only be used to cook tender cuts of meat, because there is no time to break down the connective tissue that might be present.

**GRILLING/BROILING:**

**3.1)** Thoroughly clean and preheat the grill.

**3.2)** Season the main item; marinate or brush it with oil if necessary to prevent sticking.

**3.3)** Place the main item on the grill.

**3.4)** Turn the item 90° to produce crosshatch marks.

**3.5)** Turn the item over to complete cooking to the desired degree of doneness.

**4) Deep fat frying:** deep fat frying usually occurs at 325°F to 400°F. These temperatures are difficult to maintain, but are essential to producing evenly cooked foods.

When a food is fried in oil, it is completely surrounded by high heat and thus cooks evenly. Because such high temperatures can be attained in deep fat frying, browning reactions take place at an accelerated rate. These changes are what produce the flavors and aromas characteristic of deep-fried foods.

In deep fat frying the oil must be protected from the food, and the food from the oil. There is always a certain amount of evaporation of the water from the food that takes place during the frying process, but too much will dry out the food and destroy the oil. A coating on the fried food will help to seal in that moisture and help protect the oil. More importantly, the water will turn to steam and cook the product inside the coating.

Pan-frying works along the same lines, the only difference is the amount of fat being used to cook in; pan frying requires the cook to use only enough fat to come half way up the side of the product to be fried.
The rate of conduction of heat across the coating barrier will depend on the type of coating used. A batter that has large amounts of air whipped into it will result in slower cooking, because air is a terrible conductor of air. For denser batters, the thickness of the coating will determine how fast the food inside will cook.

The best tasting fried foods are those that are sealed into their own casings by the frying process. These foods are in turn cooked in their own steam, which is fueled by the heat of the oil used to fry the food.

## DEEP FAT FRYING:

**4.1)** Heat the fat to the proper temperature.

**4.2)** Add the main item, usually breaded or battered, to the hot fat using the appropriate method.

**4.3)** Turn the items during frying, if necessary.

**4.4)** Remove the main item and finish cooking it in an oven, if necessary.

**4.5)** Blot the food with absorbent paper.

**4.6)** Season and serve the item with the appropriate sauce or garnish.

## PANFRYING:

**4.2.1)** Heat the cooking medium.

**4.2.2)** Add the main item, usually breaded or battered, to the pan in a single layer.

**4.2.3)** Pan-fry the food on the first side until it is well browned.

**4.2.4)** Turn the item and cook it to the desired degree of doneness.

**4.2.5)** Remove the main item and finish cooking it in an oven, if necessary.

**4.2.6)** Drain the item on absorbent paper.

**4.2.7)** Season and serve it with the appropriate sauce and garnish.

**5) Baking/roasting:** baking cooks food by surrounding it with dry heat. This method delivers heat at an even rate to all sides of a food, so that all parts cook at the same rate. However, the rate of heat transfer is dependent on the type of container the food is in; containers made of materials that conduct heat poorly will result in unevenly cooked products.

Convection ovens, which are equipped with fans, speed the baking process by constantly moving the heated air throughout the baking chamber. Because there is a concentration of heat at the surface of the food, and temperatures are at least 325°F, browning proceeds at an accelerated rate. Baking generally refers to the cooking method for breads and pastries.

Roasting also uses high temperature to brown and cook foods. This cooking method is used chiefly for meats.

During roasting, meats brown due to the amount of protein and amino acids present in the meat, (the maillard process, NOT caramelization), and because of the fats present. There is also a small amount of sugars present, which react to the high heat and produce the wonderful smell of roasting meat.

**BAKING:**

*THE METHOD VARIES FROM FORMULA TO FORMULA*

**ROASTING:**

**5.1)** Season, stuff, marinate, bard, or lard the main item and sear over direct heat or in a hot oven,
depending on the size of the item.

**5.2)** Elevate the item in a roasting pan so that hot air can reach all sides.

**5.3)** Roast the item uncovered until the desired internal temperature is reached. Be sure to allow for
carry over cooking.

**5.4)** Add the mirepoix to the roasting pan for pan gravy during the final half hour of roasting, if so
desired.

**5.5)** Let the roasted item rest before carving.

**5.6)** Prepare the pan gravy.

**5.7)** Carve the main item and serve it with the appropriate sauce or gravy.

**6.) Poaching/steaming:** boiling water reaches a maximum temperature of212°F. The nearer you get to that temperature, the more agitation occurs in the cooking vessel. The result can be broken pieces of food, which can be very unattractive. For this reason, food is rarely boiled. Instead, it is simmered at a lower temperature or steamed at a higher temperature.

Steaming achieves higher temperatures without the agitation present during boiling. The use of steam under pressure makes it possible to reach very high temperatures, equal to those used in deep fat frying and baking.

Steam under pressure can reach very high temperatures because there is no air present. However, too much pressure is undesirable because it tends to compress the foods being cooked. Another drawback to steam under pressure is that you cannot easily inspect the food as it is cooking, so overcooking can be a problem.

Although steam can reach high temperatures, browning reactions do not occur. This is because the water present in the steam acts as a barrier to many of the chemical reactions that result in browning.

## STEAMING:

**6.1)** Bring the liquid to a boil.

**6.2)** Add the main item to the steamer on a rack in a single layer.

**6.3)** Cover the steamer.

**6.4)** Steam the food to the correct doneness.

**6.5)** Serve the food immediately with the appropriate sauce and garnish.

## POACHING:

**6.2.1)** Bring the cooking liquid to a simmer.

**6.2.2)** Add the main item, using a rack if necessary. Be sure the item is fully submerged.

**6.2.3)** Cover the food, if directed by the recipe.

**6.2.4)** Finish cooking over direct heat, or in an oven.

**6.2.5)** Remove the main item, moisten it, and keep it warm while preparing a sauce, or cool it in liquid, as appropriate.

Cut or slice the main item and serve it with the appropriate sauce and garnish.