



Culinary Techniques
FOR HEALTHY SCHOOL MEALS


Preparing Sauces

National Food Service Management Institute
The University of Mississippi
Culinary Techniques for Healthy School Meals

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National Food Service Management Institute The University of Mississippi

Building the Future Through Child Nutrition

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PURPOSE

The purpose of the National Food Service Management Institute is to improve the operation of child nutrition programs through research, education and training, and information dissemination. The Administrative Offices and Divisions of Information Services and Education and Training are located in Oxford. The Division of Applied Research is located at The University of Southern Mississippi in Hattiesburg.

MISSION

The mission of the National Food Service Management Institute is to provide information and services that promote the continuous improvement of child nutrition programs.

VISION

The vision of the National Food Service Management Institute is to be the leader in providing education, research, and resources to promote excellence in child nutrition programs.

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Preparing Sauces

Objectives

Improve the quality of sauces served with food items. Improve the healthfulness of sauces served.

Improve the appeal of sauces served.

Main Ideas in This Lesson

- Sauces are flavorful liquids used to enhance the taste and appearance of other foods.
- There are three basic kinds of ingredients in most sauces: a liquid, a thickening agent, and other flavoring and seasonings.
- The quality of the liquid base determines the quality of the sauce.

Preparation for Learning

Review the list of recipes with each Culinary Technique. The recipes are available at:

U.S. Department of Agriculture, Food and Nutrition Service, & National Food Service Management Institute. (2005). *USDA recipes for child care*. University, MS: Author.

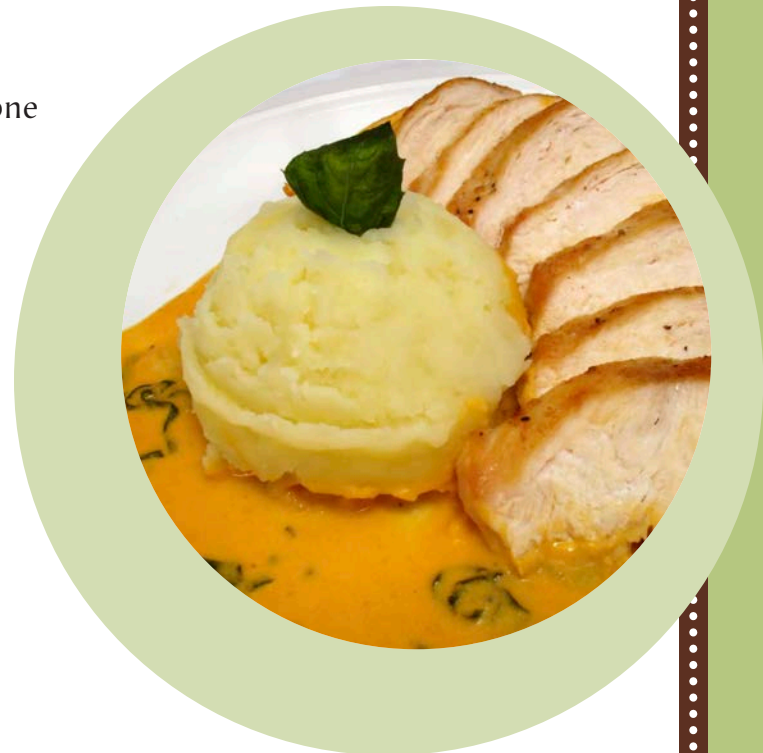
Available online at <http://www.nfsmi.org>

U.S. Department of Agriculture, Food and Nutrition Service, & National Food Service Management Institute. (2006). *USDA recipes for schools*. University, MS: Author.

Available online at <http://www.nfsmi.org>

Practice or Application

Prepare one or more of the recipes listed with one of the Culinary Techniques.



Important Terms

Coulis (*coolee*)

A French term used to describe sauces made from pureed vegetables or fruits. A vegetable coulis is usually cooked, then pureed. A fruit coulis can be made with an uncooked fruit or it may be cooked.

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method.

Degreasing

Removing the fat from chilled stock.

Just-In-Time Preparation

This term is used throughout the lessons to mean preparing a menu item in small enough amounts so that it will be at its peak of quality when placed on the serving line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Mise en Place (*meez-un-plahss*)

A French term used by chefs and other food professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Reduction

A process that removes some or all of the water in a liquid, which not only thickens it but also concentrates the liquid's flavor. A reduction sauce is a sauce thickened by boiling down the liquid to obtain a thicker consistency and a more concentrated flavor. Barbecue sauce is an example.

Roux (*roo*)

Flour and fat cooked together and used as a thickener. There are three types of roux, differing according to the length of time they are cooked: white, blond, and brown.

Slurry

A thickener made with a starch and cold water. The starch may be flour (white or browned), cornstarch, arrowroot, or rice flour.

Stock

A flavorful liquid prepared by simmering meat, poultry, fish, and/or vegetables in water until the flavor is extracted.

Straining

Pouring stock or sauce through a very fine sieve or strainer to produce a smoother sauce. This procedure is used to solve the problem of a lumpy sauce. Stocks should always be strained in this way.





Mise en Place

Getting Ready

How to Make a Stock

There are some important things to do when making a stock. Begin with a stock recipe. The ideal time to make a stock is when whole turkeys or other whole meats are on the menu. The meat is removed and the bones cooked with vegetables and seasonings to make a stock.

White Stock

Chicken or Turkey Stock
(1 gallon)

Approximately 8 pounds of bones
(turkey or chicken)

8 ounces onions, chopped

4 ounces celery, chopped

4 ounces carrots, chopped

Cover with 6 quarts of cold water.

Do not add salt to the stock.

Bring the raw bones and liquid to a boil and reduce the heat so the liquid is at simmer (do not boil). After about 1 hour, add the vegetables and cook until the liquid is reduced by one-third. This will take about 3 hours. Skim the stock as needed during the cooking time.

After the stock is ready, it should be strained to separate all the solids, the bones, and vegetables from the liquid.

Remove the stock from the heat. Using a ladle, carefully ladle the stock from the pot and strain it through a very fine strainer. The strainer should be fine enough that no solids are strained through and the liquid is clear. Use the best tool available for straining stock. Some tools that can be used include a fine mesh-type strainer, a small hand-held colander, a china cap, cheesecloth, or a large coffee filter in a colander.



After the stock has been strained, cool it quickly in shallow pans in the refrigerator or place in an ice water bath. Stir the stock periodically during the cooling process. When the stock is completely chilled (41 °F or less), remove any fat that is on the top.

Storing Stocks

Stock is a clear, flavored liquid that freezes well. Chilled stock can be frozen in one gallon amounts to be used for sauces. However, once a stock has been used to make a sauce, the sauce itself should not be frozen. Sauces do not freeze well and should be made in amounts needed the day of production.

Starting Stocks in Cold Water

By starting with cold water, the entire mixture heats at the same time. The impurities from the bones collect on top of the water and can easily be skimmed off. If hot water is added to the bones, the impurities will coagulate and stay in the water making the stock cloudy.



Simmer Stocks

Simmering is cooking just below the boiling point, approximately 185 °F. At this temperature, the bones release their flavor into the liquid. When a stock is boiled, the impurities and the fat mix in with the water and the stock becomes cloudy.

Skim the Stock

A good stock is clear, like a commercial stock base mixed with water to make a broth. Skimming frequently during cooking removes impurities and fat that rise to the top so the stock remains clear.

Flavored Commercial Stock Bases

Broths made from commercial chicken stock base, beef stock base, and vegetable stock base are all popular substitutes for school-made stock. Although they save labor costs, a commercial stock base never gives as good a flavor as a school-made stock.

Regular commercial stock bases are high in sodium and for that reason their use should be limited in school kitchens. It is always important to choose ingredients that are consistent with the principles of the *Dietary Guidelines for Americans*. Substitute a low-sodium for a regular commercial stock base.

Using Commercial Stock Bases

1. Reduce the amount of regular commercial stock base and use only half to three-quarters as much as recommended in the directions. Use the amount of water recommended. If low-sodium stock base is available, follow the directions and use it full strength.
2. Make the sauce using water as the liquid. Then at the end add only enough stock base to get the flavor needed. Begin with half the amount recommended. Add the stock base and then taste test for flavor. Use the least amount of regular stock base needed for flavor.
3. Do not add additional salt or use flavorings such as onion salt or garlic salt.





Sauces and Healthy School Meals

Sauces are flavorful liquids that are used to enhance the taste and appearance of other foods. They are usually thickened. Although many traditional sauces are high in fat, today's culinary professional uses new techniques to make delicious sauces with less fat and less salt (sodium). Sauces can be added to main dishes, to vegetables, to fruits, and even to desserts. There are many recipes for different sauces, some are cooked and some are uncooked.

Menu-Planning Practices for Healthy School Meals

- Reduce the fat in some sauces by replacing a roux thickener with a slurry.
- Use more fruit and vegetable based sauces.

Purchasing Practices for Healthy School Meals

- Purchase polyunsaturated and/or monounsaturated oils, such as canola, corn, cottonseed, olive, peanut, safflower, soybeans, or sunflower oils.
- Replace higher fat dairy products with lowfat dairy products.
- Purchase low-sodium stocks or bases.

Sauces are an important part of the school menu because they can be used to enhance convenience items such as a chicken patty; adding moistness, flavor, richness, eye appeal, and taste appeal. Knowing how to make a sauce is one of the most basic but important culinary skills.

Some sauces are high in fat and should be used in moderation. Some examples of sauces that are high in fat include white sauce, cream sauce, hollandaise sauce, some gravies, and tartar sauce. Some sauces are naturally low in fat, such as salsa, tomato sauce, barbecue sauce, and fruit sauces. These sauces can be used to enhance the appeal and nutrient content of foods served to students.

Traditional sauces and gravies can now be made with a reduced amount of fat using updated recipes and new culinary techniques.

The amount of sauce served varies with the purpose of the sauce. Sometimes a sauce is part of the dish and is used to bind ingredients together. A white sauce is often used this way.

When tomato sauce or pasta sauce is served over spaghetti, the recipe will provide the information on the specific serving size. Portion control of higher fat sauces or gravies keeps calories and fat grams under control. Because the portion sizes of meal components affect whether a school lunch is reimbursable, follow the recipe for the correct portion size for every food served, including sauces.



Basic Principles of Preparing Sauces

The variety of sauces is limited only by the imagination of foodservice professionals. Chefs consider that sauces demonstrate the chef's highest skills. Some sauces are considered classics while others represent newer creations that fit today's lighter tastes. In schools, sauces are not used as often as in fine restaurants, but when they are used their presentation and taste are just as important.

A sauce used in school menus generally must be prepared in quantity and must be suitable for the food it is served with. The recipe for a menu item will usually suggest the right sauce and may include the recipe for it. Sauces are appealing ways to create variety in pastas and convenience main dish items.

Purpose of Sauces:

- Add flavors
- Add moisture
- Add visual interest
- Enhance flavors
- Adjust texture

Three Basic Ingredients in Most Sauces:

1. The liquid used to prepare the sauce,
2. The thickening agent, and
3. Other flavorings and seasonings.

Liquids in Sauces

The liquid base for a sauce may vary. The most popular liquids are:

- Stock
- Milk
- Juice

The quality of the liquid base determines the quality of the sauce. Ideally, when stock is the liquid, it is made from scratch. The most important reason for making stock from

scratch is to have a high quality product and control the ingredients, mainly the salt. When school-made stock is not available, commercial stock base can be used. Regular flavored stock bases are usually very high in salt. If a commercial stock base is used, use the low-sodium type to reduce the salt in the sauce or gravy.

Milk as the Liquid

Milk is another liquid that is often used in sauces. Whenever milk is used as a preparation ingredient, use lowfat or nonfat. This simple substitution in all school recipes goes a long way to reduce the fat in school meals. Substitute the same amount of nonfat or lowfat milk for the amount of whole milk in the recipe. Nonfat dry milk can be substituted for liquid milk in a recipe.

Ways to Reduce the Fat in Recipes by Substituting Lowfat Milk Products

Any lowfat milk can be substituted for whole milk in a recipe. Reduced fat sour cream can be substituted for regular sour cream, which has 20% fat. When sour cream is added to a cooked sauce, it should be added toward the end of cooking.

To substitute plain yogurt for sour cream, blend 1 tablespoon of cornstarch into each 1 quart of yogurt. Mix well with a wire whisk.

Plain yogurt can easily be substituted for sour cream in an uncooked recipe. In a cooked recipe, the yogurt should be added at the end of the cooking process. The amount of fat may vary from 3.5% to fat-free. With much less fat, the yogurt will react in a cooked food differently from sour cream. Yogurt will add more moisture than an equal amount of sour cream.



Other Liquids

Some sauce recipes call for a juice to be used as the liquid. This is especially true in dessert sauces, such as the USDA recipe for Spiced Apple Topping (G-9) that includes apple juice. In a starch-based sauce, adding a juice has to be done very carefully because acid breaks down starches. Recipes containing juice usually have a little more starch in them to take care of the effect of the acid in the juice. Acid products, such as fruit juices or tomatoes, are added to a starch-based sauce at the end of cooking.

Thickening Agents in Sauces

Most sauces are thickened with a starchy product like flour, cornstarch, arrowroot, bread crumbs, potato starch (or instant potatoes), or rice flour. Some commercial products use other kinds of starches for thickening. The thickening agent has an effect on the appearance of the sauce. For example, a sauce or gravy thickened with flour has an opaque appearance. When cornstarch is used, the sauce or gravy has a clear look.

Flour used for thickening may be raw or browned. When the flour is browned it has less thickening power, so the amount should be increased for the same amount of liquid.

Flour can be browned in the oven on a sheet pan at 350 °F for 10–15 minutes depending on the depth of color desired. It should be stirred occasionally and watched closely. Once it begins to brown it can quickly burn. Browned flour can be stored airtight in the refrigerator until needed to make a roux or slurry.

Starches vary in how much liquid they will thicken.

For example, one unit of cornstarch will thicken the same amount of liquid as two units of flour. The thickness of a sauce can be changed by changing the amount of a specific thickener used.

Thickening with a starch happens when the starch particles absorb water and swell in size. This happens during the cooking process and continues while the sauce cools. The continued thickening while cooling explains why the sauce in a pan of cold food is very thick.

Sometimes a sauce becomes so thick when it is cold that it pushes out some of the water and the mixture *weeps*. Weeping is not desirable and is very unattractive to customers. Sauces should be removed from the serving line when this happens.

Starchy products like flour or cornstarch have a tendency to become lumpy when handled incorrectly. If the starch is added directly to a hot liquid, the outside particles cook and the inside becomes a lump. Most all cooks have seen a lumpy sauce or gravy. To keep the starchy product from lumping together, another ingredient must be added to separate the particles of starch before the starch is cooked. This can be fat, sugar, or a cold liquid like water or juice. Sauce and gravy recipes include an ingredient that is used to separate the particles of starch.



Three Ways to Separate Starch Particles

1. **Separating starch particles with fat (how to make a roux)** – A roux is a cooked mixture of flour and fat. It is used to thicken gravy, white sauce, and cream soups. Some dishes require a roux that has been cooked just enough to cook the starch so the mixture remains white or blond. Other recipes require a roux that has been cooked until it becomes brown or caramel color. The browning changes the flavor. A brown roux is used to thicken stews, gravies, and ethnic dishes like Cajun gumbo.
2. **Separating starch particles with sugar** – Some sauces include sugar and starch with other ingredients to keep the starch particles from lumping together. This culinary technique is used to make puddings and many kinds of dessert sauces.
3. **Separating starch particles with a cold liquid (how to make a slurry)** – The third way to separate the starch particles to prevent lumping is to make a paste of starch and water, called a slurry. The slurry is then added to a hot liquid. The starch can be plain flour, browned flour, corn starch, or another starch.

When plain white flour (raw flour) is mixed with cold water, cooks sometimes refer to it as a *whitewash*. This thickening agent does not have the rich flavor of a roux, but neither does it have the fat. Recipes that have been modified to reduce the fat often use a slurry for thickening the sauce.

A slurry is useful for making sauces or cooked salad dressings and for thickening a recipe

mixture that is too thin. A slurry made with browned flour can be used as a substitute for a browned roux to make gravy or to thicken a dish like Cajun gumbo. This way of thickening avoids the fat in a roux and adds flavor.

If sweet and sour pork is leftover and is to be reheated the next day, the sauce may be too thin and watery. A slurry of cornstarch and cold water can be added to the thin mixture. On reheating, it is thickened appropriately and ready to serve.

Seasonings for Sauces and Gravies

Sauces or gravies will also have some type of seasonings and flavorings. These ingredients are different depending on the kind of sauce and the accompanying menu item. Recipes have been developed so that the seasonings are in exactly the right amounts for the best flavor. Measure the seasonings carefully and add them to the sauce mixture according to recipe directions.

Salt is a seasoning that may be included in a recipe. Omit the salt if the recipe is being made with a commercial stock base instead of school-made stock. Remember, most

commercial stock bases already have a large amount of salt, so more is not needed. Soy sauce is a seasoning sometimes added to sauces.

This sauce is already high in salt, so do not add more.

Reduced sodium soy sauce is also available.

Avoid using flavored salts for seasoning. Use garlic powder and onion powder instead of the salt variety.



Culinary Principles, *continued*

Fruit or Vegetable Coulis

Today's health conscious customers expect school nutrition professionals to use new culinary techniques for lower fat menu choices. One of the newest types of sauces is coulis.

A coulis is a sauce thickened with pureed fruits or vegetables. Pureed fruits and vegetables do not have the same properties as starch but they will thicken a sauce while adding both flavor and nutrients. This type of sauce can be a healthy alternative to more traditional sauces since it contains little fat and provides the nutrients from the main vegetable or fruit ingredient.

A coulis can be cooked or uncooked. A vegetable coulis is made with a single vegetable base such as broccoli, cooked with flavoring ingredients such as onions, garlic, herbs, and spices. Then the whole mixture is pureed. Stock can be used to thin the puree. A broccoli or spinach coulis would be a healthy and different sauce to be served with grilled or baked chicken breasts or chicken strips.

Tomato sauce is a type of vegetable coulis and part of many favorite menu items today. School-made tomato sauce is ideal because the ingredients can be controlled. Salt is one of the ingredients that is important. All regular canned tomato products are made with added salt. For this reason, salt does not need to be added to the recipe. In fact, the USDA recipe for Tomato Sauce (G-7) does not include salt. With the many other seasonings added, salt is not necessary for flavor. Thickeners are not added to tomato sauce because it is thickened by evaporating some of the liquid while cooking.

Fruit coulis is often made with fresh or frozen berries like strawberries or other fruits. A dessert sauce, such as strawberry coulis, would be an ideal sauce to serve with a cake for a healthy, lowfat dessert. Fruit coulis can be served as an accompaniment to a meat item like chicken tenders. See the recipe for Apricot Coulis which is made with dried apricots. Other dried fruits could be substituted for the apricots.

Since this kind of sauce would be new to most student customers, it should be offered as a choice or served on the side so students can add the sauce as desired. Look for healthy coulis recipes in quantity recipe sources.



Apricot Coulis

Yield: 1 1/2 quarts

Ingredients	Amount	Directions
Dried Apricots Water Sugar	1 pound 2 1/2 cups 5 ounces	1. Combine apricots, water, and sugar in a saucepan. Simmer for 5 minutes. 2. Remove from heat; cool. Puree mixture in a food processor.
Orange Juice	2 1/2 cups	3. Add orange juice. Serve chilled.

Serving size: Serve #40 scoop (1 1/2 tablespoons) of Apricot Coulis as a sauce for cake squares, vanilla pudding, ice cream, or chicken or pork tenders. The recipe makes approximately 64 servings.

Variation: Dried peaches can be substituted for all or part of the dried apricots.

Adapted from: *Healthy Cuisine for Kids Workshop*.

Knowing how a sauce recipe works helps make sense of the culinary techniques for making sauces. Understanding the basic principles of sauce making also helps to justify using recipes. Sauces can become a more important part of school menus and can help to liven up traditional dishes. Use USDA recipes for sauces and look for new ones.



Culinary Technique Making a Roux

Sauces or gravies thickened with a roux contain from 1–3 grams of fat per serving.

1. **Melt the fat.**
2. **Add the flour and stir until the flour and fat are combined.**
3. **Cook according to the color of roux required. The recipe will give an estimated time.**

A white roux should be cooked only long enough to cook the flour and avoid a pasty taste.

A roux should be cooked at a moderate temperature.

A brown roux should be cooked until the color is a brown to dark brown and the taste is nutty.

Stir continuously to avoid lumps and over or uneven browning.

4. **Continue with the recipe or remove from heat and chill for later use.**

Try these USDA Recipes that include this Culinary Technique

Chicken or Turkey a la King D-16

Chicken or Turkey and Noodles D-17

Chicken or Turkey Pot Pie D-19

Tuna and Noodles D-37

Chicken Tetrazzini D-42

Cream of Vegetable Soup H-3

Cream of Chicken Soup H-6

Scalloped Potatoes I-16



Culinary Technique Making a Slurry

Sauces or gravies thickened with a slurry have little or no fat. This is an excellent way to reduce the fat in a school menu.

1. **Blend flour or cornstarch with a small amount of cold liquid.**

Browned flour can be used to make a fat-free gravy or for use in thickening dishes such as stews or gumbo.

2. **Stir to completely dissolve the starch.**
3. **To add to a hot liquid, take a small amount of the hot liquid to be thickened and blend it into the slurry.**
4. **Add the slurry mixture to the hot liquid.**



Try these USDA Recipes that include this Culinary Technique

Apple Cobbler	C-1
Cherry Cobbler	C-6
Cherry Crisp	C-7
Peach Cobbler	C-13
Chicken or Turkey Chop Suey	D-18
Beef Shepherd's Pie	D-43
Sweet and Sour Pork	D-36
Stir-Fry (Chicken, Beef, Pork)	D-39
Chicken Fajitas	D-40
Clear Dressing	E-18
Sweet and Sour Sauce . .	G-5
Spiced Apple Topping . .	G-9
Stir-Fry Sauce	G-11
Bean Soup	H-1



Culinary Technique

Pureed Vegetable and Fruit Sauce (Tomato sauce and coulis)

Vegetable Coulis

1. **Sweat or sauté the aromatic vegetables (onions) in a small amount of oil.**
2. **Add the main ingredient and any additional flavoring ingredients with an appropriate liquid, if necessary.**
3. **Simmer to develop the flavor and cook the vegetable or fruit.**
4. **Puree the sauce, if desired.**
Use a food mill, blender, food processor, or an immersion blender.
5. **Serve immediately or chill and refrigerate.**

Fruit Coulis

1. **Combine ingredients.**
Cook if directed.
2. **Puree the sauce, if desired.**
Use a food mill, blender, food processor, or an immersion blender.
3. **Serve immediately or chill and refrigerate.**

Try this USDA Recipe that includes this Culinary Technique

Tomato Sauce G-07





Quality Standards

Before any food is placed on the serving line, it should be evaluated using the Quality Score Card. The quality standards shown on the score card can only be reached when the sauce recipe is followed exactly. Follow the recipe for preparing a sauce to meet quality standards. The school nutrition manager and assistant who prepared the sauce should make the determination whether the food product meets the standards on the Quality Score Card. If the decision is made that the food does not meet the Quality standards, do the following things:

1. Substitute another similar food on the serving line. Follow the school district procedure for menu substitutions.
2. Use the sauce in another way, if possible, to avoid wasting the food.
3. Determine what happened during preparation that caused the poor quality of the sauce and make plans to correct the preparation next time.





Quality Score Card for Sauces

Date: _____ Name of Menu Item: _____

Proudly Prepared by _____

Quality Scored by _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **NA** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

Quality Standard	Yes	No	NA	Comments
Appearance				
No lumps are visible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
There is no visible fat or scum.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Color is consistent with the main ingredients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
The sauce/gravy appears fresh, not too jellied.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Texture or Consistency				
Thickness is about like corn syrup.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
There are no lumps.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Added ingredients are fork-tender.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Flavor and Seasoning				
Seasonings are balanced with no one additive predominant (salt is not an obvious taste).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Thickener has been thoroughly cooked so there is no starchy taste.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
True flavor with no taste of burned thickener or off-flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
The sauce or gravy complements the food item.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Service Temperature				
160 °F–170 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	





Culinary Application and Practice Activity

Culinary Practice is an activity designed to give foodservice assistants an opportunity to practice preparing sauces. This practice should be completed within 10 days after the lesson. Use the Culinary Practice Score Card for the activity.

1. Foodservice assistants may work as partners or individually, depending on the directions from the manager. One partner should be someone who cooks and the other, someone who has other responsibilities. Both foodservice assistants should work together to complete the Culinary Practice.
2. The manager and foodservice assistants should discuss the Culinary Practice for Preparing Sauces. Make a note of the date the Culinary Practice should be completed and discussed with the manager.
3. The manager will approve the recipe to be used for the practice. The recipe should use one of the culinary techniques described in this lesson. Review the steps of the culinary techniques:
 - Culinary Technique: Making a Roux
 - Culinary Technique: Making a Slurry
 - Culinary Technique: Pureed Vegetables or Fruit Sauce
4. The manager and foodservice assistants who prepared the product will evaluate the product before it is placed on the serving line. Use the Quality Score Card for Sauces.





Culinary Practice Score Card for Sauces

Name(s): _____

(This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

Purpose: The purpose of the activity is to practice Preparing Sauces.

Culinary Technique: (Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.)

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and foodservice assistant(s) will select a recipe for sauce that includes one of the culinary techniques described in this lesson. Check **YES** or **NO** when each step is completed.

	Yes	No
<i>Plan food production for just-in-time service.</i>		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
<i>Review the Quality Score Card and the recipe.</i>		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
<i>Organize equipment and ingredients.</i>		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
<i>Use the right culinary technique.</i>		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
<i>Deliver a quality product.</i>		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
<i>Discuss the following questions with the manager before serving.</i>		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ Date Signed: _____



References

- Culinary Institute of America. (2002). *The professional chef*. New York: John Wiley & Sons, Inc.
- Molt, M. (2006). *Food for fifty* (pp. 747-778). New Jersey: Pearson Education, Inc.
- National Food Service Management Institute. (2005). *Healthy cuisine for kids*. University, MS: Author.
- U.S. Department of Agriculture, Food and Nutrition Service. (n.d.). *Inside the pyramid*. Washington, DC: Author.
- U.S. Department of Agriculture, Food and Nutrition Service. (n.d.). *Quality food for quality meals*. Washington, DC: Author.
- U.S. Department of Agriculture, Food and Nutrition Service. (2004). *Fruits and vegetables galore: Helping kids eat more*. Washington, DC: Author.
- U.S. Department of Agriculture, Food and Nutrition Service. (2007). *HealthierUS school challenge: Recognizing nutrition excellence in schools*. Washington, DC: Author.
- U.S. Department of Agriculture, Food and Nutrition Service. (2007, January). *The road to SMI success: A guide for school food service directors*. Washington, DC: Author.
- U.S. Department of Agriculture, Food and Nutrition Service, & National Food Service Management Institute. (1996). *Choice plus: A food and ingredient reference guide*. Washington, DC: Author.
- U.S. Department of Agriculture, Food and Nutrition Service, & National Food Service Management Institute. (2005). *USDA recipes for child care*. University, MS: Author.
- U.S. Department of Agriculture, Food and Nutrition Service, & National Food Service Management Institute. (2006). *USDA recipes for schools*. University, MS: Author.
- U.S. Department of Health and Human Services, & U.S. Department of Agriculture. (2005). *Dietary guidelines for Americans 2005* (6th ed.). Washington, DC: Author.





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