6/ Problem Solving Games

Foodservice operation owners and managers look for problem solving skills in their employees. Chefs and managers are busy women and men and rely on a staff that can take the initiative to solve problems on the ground level.

CHAPTER OBJECTIVES

By the end of these games you should be able to:

① Demonstrate problem solving skills in the kitchen.

② Adapt a basic recipe (platform) to one or more situations such as cuisine style and/or dining scenario.

③ Improvise using available ingredients and equipment.

④ Use your understanding of platforms to create appropriate concepts.

⑤ List and explain some potential problems in a foodservice environment and how they could be solved.

⑥ Design and implement a dish or menu within a set of constraining parameters.

While:

❼ Demonstrating effective communication with team members.

❽ Demonstrating appropriate knife skills.

❾ Demonstrating appropriate cooking techniques.

❿ Demonstrating appropriate kitchen sanitation and safety procedures.

⓫ Demonstrating appropriate seasoning and flavor balance.

⓬ Cultivating advanced culinary technique.

Does the owner need to know that a restroom is soiled, that a diner was unhappy with the doneness of her steak or that a credit card was rejected at the cash register? These are problems that can be quickly solved by employees who take initiative and ownership of the problems. Foodservice operators are happy to have team members who can think on their feet and get the problems solved. When the problems are bigger—a food order doesn't arrive before dinner service, a guest claims he suffered a case of food-borne illness at the establishment, or the truck breaks down on the way to catering an off-premise event—effective problem solving can make or break an operation.

An example: In class there was a power failure, causing the kitchen to go dark, with only a few emergency lights remaining. There was palpable relief among the class—it was a tough night in an introductory hot foods class with an ambitious menu and a demanding chef-instructor. The chef let out a sigh of frustration and the students imagined themselves chatting casually on the quad until the power was restored. A few students began to put products away and remove their aprons. The chef responded, "Where do you think you're going? We have people to feed! Do you think your guests won't be hungry because it's dark? Get to work!" They cooked by the dim emergency lights and were held to the same standard of excellence as we would have been under ideal conditions. The lesson is clear: problems happen but must be quickly dealt with. A problem is not an excuse to falter on service excellence. If anything, it is even more important

to provide excellent hospitality when problems occur.

Problems are unfortunately a common and unavoidable feature of business so it might be helpful to establish a working definition of the word **problem**. A definition that we like is that **a problem is a negative difference between what is expected and what is provided.** If you think about problems in your life, most of them will fall into this situation.

Think about a problem you had in your life. Describe it. Does it fit into the definition given above? What was the difference between what you expected and what was provided?

For example, it is a problem in a restaurant when a food order does not arrive on time from the purveyor. The problem is this negative difference between what is expected and what is provided. The expectation of the restaurant is to have the food delivered by, perhaps, noon. But what is provided is a five PM delivery, not allowing ample prep time before service. To take another example, a bride and groom who pay $50 per guest for Beef Wellington at their wedding expect a hot, beautifully presented, perfectly-cooked tenderloin of beef inside a pastry crust.

If there is chicken, raw steak, or the cook's wedding ring inside the crust, there is a problem—a negative difference between the couple's expectations for the dish and what was provided.

Conversely, when there is a positive difference between expectations and what is provided, you can create a great experience that truly wows your guests. When an unremarkable hole-in-the-wall restaurant provides the best barbecue you have ever tasted; when you expect a long wait at a restaurant but are immediately ushered to a table with a great view; when the sommelier's unusual recommendation pairs perfectly with your dessert; or you have perfectly cooked and seasoned, beautifully presented food on your hospital tray, there is a positive difference between what you expect and what is provided. There is always room in what you do to create a positive difference in the experience you provide your customer.

Being a good chef or food service manager is really about managing problems in two ways: preventing them from happening in the first place and dealing deftly with those that inevitably arise. By hiring the right people, providing first-rate employee training, having a facility that is well-designed with ample space, maintaining a clean and sanitary facility, buying excellent ingredients and structuring an appealing menu that provides good value, you can avoid having many problems in the first place. For example, an experienced and dedicated employee trained in sanitation might prevent a problem for a restaurant by preventing food-borne illness. But even chefs from the best operations tell us about problems that they cannot avoid or those that arise unexpectedly. Such problems are of course unexpected and can consist of nearly any scenario—a guest with strict dietary restrictions, equipment failures or limitations, problems with product quality or availability, a breakdown in communication, or even a personality problem can be challenges.

A good team member can transform this negative difference between expectation and what is provided into a positive one. Let us present a final example of how this transition may occur. When Jon, one of this book's authors, was new to industry, he cooked in a cramped 70-seat restaurant with only a six-burner stove and single oven, making the dinner rush tough to manage. The problem then was that the expectation of the cook is to have an ample cooking service to prepare multiple meals simultaneously and efficiently. The negative difference between the reality and this expectation resulted in a problem. Similarly guests at that restaurant had an expectation that they could arrive at any point in the evening and receive a wonderfully prepared meal within a reasonable timeframe, perhaps twenty minutes. The solution to the problem was to move some of the burden from the kitchen to the server and garde manger stations by focusing on a quick appetizer menu that featured freshly prepared soups, salads and cold appetizers. That way guests could get good food fast and the burden at the stove and oven was more evenly distributed. Ultimately these changes turned the negative discrepancy between expectation and reality into a positive one.

Imagine you are a restaurant chef facing a particular problem. Describe the problem and how you might change this negative difference in expectation and reality into a positive one for you and the guest.

From the Line: Case Study

PASTRY CHEF LEI SHISHAK, STONEHILL TAVERN, DANA POINT, CALIFORNIA

Before becoming a pastry chef, Lei Shishak studied the sciences for her pre-med college major and worked in the marketing department of a large financial institution. Chef Lei has been able to cross-pollinate the skills she gathered from her education and work experiences. What she has used most are problem-solving skills.

Critical thinking within the world of medicine revolves around the use of a decision tree. Essentially, the philosophy of solving medical problems uses a series of deductions to lead to the most fitting diagnosis. This thought process can also be applied to the kitchen. When faced with a predicament or situation in the kitchen, there are a certain number of possible solutions one can implement to resolve it. Chef Lei explains, "When baking, if I'm missing an ingredient, I ask myself, 'What are the recipe's components and what is the missing ingredient's role?' I can either find something to mimic the role of the missing food or make it from other ingredients."

Like her pre-med studies, baking revolves around science. In both fields, Chef Lei applies formulas, science, and math skills to the process of critical thinking. Problem solving skills are similar and applicable in the kitchen.

"There is no such thing in our kitchen as '86'ing a menu item. You have to make more... and quickly!" Often times this rule has put Chef Lei in a situation where she has to solve a problem rapidly. "A customer has ordered an item and they are waiting for it. You have to think quick and sometimes that means solving the problem of not having that dish made. The only solution at that point is to make it quickly!" For example, Chef Lei was plating a dessert that used crème anglais. She discovered that the crème anglais had soured and couldn't take the time to make more in the middle of the dinner rush. She asked herself, "What is crème anglais made of?" She quickly recognized that it has the same components as vanilla ice cream. Chef Lei slightly melted ice cream and added a touch of cream to adjust the texture. Without fail, the solution served well throughout the evening's dinner service.

On another occasion, Chef Lei realized mid-recipe that she had run out of buttermilk. She asked herself, "What does the buttermilk add, so what component needs to be replaced?" Sour. She solved her problem by simply adding

vinegar to milk, to impart acidity, saving the recipe.

On a cold winter morning Chef Lei came into work at 6 a.m. to make bread and discovered that the proofers were not functioning. The kitchen was too cold for the dough to rise. Chef Lei used her ingenuity and her problem solving skills to identify and create the warmest environment possible within the restaurant. With dough in hand, Chef Lei grabbed a couple of trash bags and towels she soaked in hot water. She placed the wet warm towels inside the trash bags, along with the dough and sealed the bags tightly. In no time at all, Chef Lei was pleased to see that the dough had risen and could be used that day.

Temperature was the source of yet another problem Chef Lei had to solve. When first learning to make biscuits, Chef Lei learned the hard way that the butter had to be particularly soft in order to cut it into the dough. While Chef Lei was in the process of making the dough, she realized that the butter was too cold and was going to cause a problem in the final result of the biscuit. Chef Lei determined that she needed to cut the butter into a fine texture in order to save the consistency of the recipe. She used a cheese grater to shred the butter and then added it to the dough—which worked perfectly!

Chef Lei believes that an important part of developing problem-solving skills involves experimentation, the opportunity to make mistakes and to learn in a safe environment, the goals of this book. In culinary school, Chef Lei learned her pastry skills by reading a recipe at night, reviewing the recipe in the morning, and then preparing the recipe in class. She recalls having particular difficulty when learning to prepare buttercream. When making buttercream, it is important for the butter to be soft in order for it to blend with ease. Chef Lei had no way of knowing this fact until she was in the process of making it for class and it was too late. She was embarrassed when the buttercream didn't blend well. Her instructor took one look at her buttercream, made her throw it away, and asked her to start over. Since she was working with a partner, the partner's grade was also affected. Chef Lei felt terrible. She stayed in the kitchen and made the buttercream over and over again until she was able to find the proper consistency.

Chef Lei compares problem solving to walking in the dark with a flashlight; "You point the flashlight in front of you. You see what's ahead and then you move on." To apply this analogy to problem solving in the kitchen, first see the challenge in front of you, then use your analytical skills to decide how to move forward. Today, Chef Lei solves problems daily by using the lessons she learned in culinary school, in addition to trial and error. She was thrilled to participate in this interview and contribute to this book because she truly wishes that there would have been a book teaching her these problem solving skills and an open-minded classroom kitchen when she was in culinary school!

Today, the problem solving for Chef Lei continues. Lei wanted to create a flaming flan. When she tried to make the flan the first couple times, she struggled with the alcohol. First there was too little alcohol to make the flame stay lit. Then when she got the flame the right size, she

realized that she used too much alcohol to make the dessert cost effective in production. As of this writing, Chef Lei was still struggling with solving this problem—but we're confident she'll solve it!

CASE STUDY Questions

❶ Were you impressed with any of the solutions that Chef Lei used to solve problems in her kitchen? Why or why not?

❷ Give an example from your own life of when a problem turned into an unexpected opportunity.

❸ As Chef Lei relies on her science background, what skills or early learning from your life has informed your decision-making in the kitchen?

❹ Point to a potentially negative situation that Chef Lei converted to a positive experience, and explain how.

❺ Give an example of a kitchen trick or substitution that you've used to solve a problem as Chef Lei did. How did you think of it?

Game: Hands-On Eating

The Scenario

Reservations for the college foundation's annual fundraising dinner are going swimmingly. As the caterers for the event, you've designed a fabulous menu that includes elaborate platters, soup, salad, entrée and dessert. The menu will impress the guests and showcase your culinary talents:

Cheese and Crudités Platters with Vegetable and Ice Carvings

Seafood Bisque

Salad with Spring Roll and Soy Miso Vinaigrette

Navarin of Lamb with Baby Vegetables

Molten Chocolate Cakes

But there's a problem: The room only seats about 200 donors for a sit-down dinner but already reservations are topping 300. The fundraising director comes to you and humbly explains the situation. It would be a bad thing to turn down so many potential donors. With 300 guests instead of 200 you can increase your revenue by 50 percent. But no alternate space is available.

The client has a creative solution to the problem. What if the entire menu were able to be served butler-style as passed hors d'oeuvres? This would eliminate the need for large tables and could pack the donors in for a creative and swanky event. Are you up to the task?

In this game, Hands-on Eating, your team is required to adapt two food items from the menu that can be eaten neatly out of hand. To make things more interesting, no plates or bowls allowed! You can depart from the menu significantly but some aspect of the original menu item needs to be clearly recognizable.

Activity:

Design an alternate menu that you think would be appropriate for an event like this one.

Game Details

This game is for a student with medium to advanced skills. You should be comfortable in a kitchen and be familiar with basic preparations and applications, at minimum. There is no maximum skill level. Even professional chefs have fun with and are challenged by this game.

In this game you are challenged to think creatively to solve a problem—how to adapt a traditional menu to be eaten out of hand. How far you deviate from the original menu depends on your creativity. The main rules are:

- Your menu item must reflect the original menu in some way.
- No plates or bowls and the food item should be capable of being eaten entirely hand-held.
- Don't be so obsessed with the engineering of the hand-held item that you forget to make it taste wonderful!

Game Specifications

ANTICIPATED TIME:	3–4 HOUR LAB
Concept Presentation	20 minutes
Student Planning and Station Set-up	30 minutes
Cooking	80–140 minutes
Tasting, Discussion and Debriefing	30 minutes
Clean-up	20 minutes

Ingredients Needed

Note: students should form teams of 2-3. Depending on class size all or part of the menu may be used. Quantities are recommended for a class of 18 and should be adjusted depending on class size, time allowed and how much of the menu is being used. Finally, keep in mind that the original menu from the game description need not be made – an alternate from the instructor or the student activity could be substituted—and additional items are included to encourage creativity in adapting these items to be hand-held.

In addition to a variety of pantry items and staples always on hand (see p. 67):

CHEESE AND CRUDITÉS PLATTERS WITH VEGETABLE AND ICE CARVINGS	SEAFOOD BISQUE	SALAD WITH SPRING ROLL AND SOY MISO VINAIGRETTE	NAVARIN OF LAMB WITH BABY VEGETABLES
About 2 pounds of assorted cheeses About 3 pounds of assorted vegetables	About 1.5 pounds assorted seafood 1 pt. heavy cream 2 qt. fish stock	About 1 lb. assorted salad greens About 1 lb. of other vegetables—carrot, red pepper, daikon, cucumber, bean sprouts Small amounts of soy sauce, miso, rice wine vinegar, mirin, peanut oil, sesame oil, vegetable oil, chili oil garlic, ginger and scallions Spring roll wrappers About ½ lb. of ground pork or shrimp, if desired	About 2 lb. lamb shoulder About 1 qt. brown stock About 1 lb. turnips About 1 lb. assorted baby vegetables

MOLTEN CHOCOLATE CAKES	OTHER POSSIBLE INGREDIENTS	SPECIAL EQUIPMENT NEEDS
About 8 ounces semi-sweet chocolate About 1 cup heavy cream About ½ lb. flour About ½ lb. sugar 1 dozen eggs Small amounts of baking powder	Puff pastry Phyllo dough Belgian endive, red leaf Romaine lettuce or spinach Nori Lasagne pasta	Skewers Toothpicks Assorted Flatware

Student Guidelines

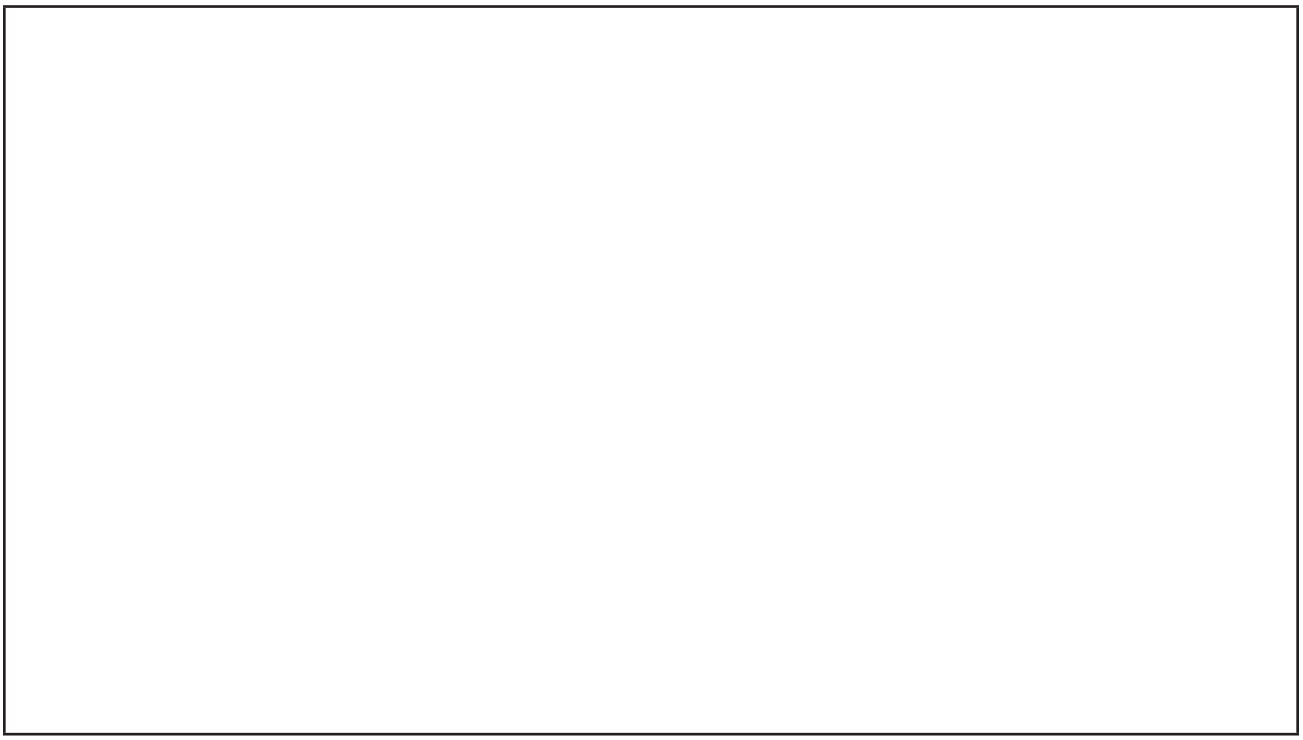
- **Safety First.** Put knife safety and safe food handling at the fore. Wash hands frequently, keep station clean and organized and observe time and temperature requirements for safe food handling.
- Use the tools in the flavor chapter to help you brainstorm initial ideas and guide you through the game. Discuss merits of all suggestions and reach consensus on leading concepts. Develop concept fully, including the engineering of how the item could be hand-held before beginning cooking. Remember that the item must also be served from a passing tray.
- Write a plan for recipe execution. Do not be afraid to alter the design as you go.
- Taste as you go. For unsafe or raw ingredients, cook a small sample to determine seasoning balance and flavor.
- Divide the prep work among the team.
- Maintain constant communication.
- Present finished product in a way that is visually appealing and is served at the appropriate temperature. Use the plating template in the activity tear-out as a guide.
- Keep an eye on the clock—start long-cooking items immediately and quickly assemble your mise-en-place.

Supporting Activities

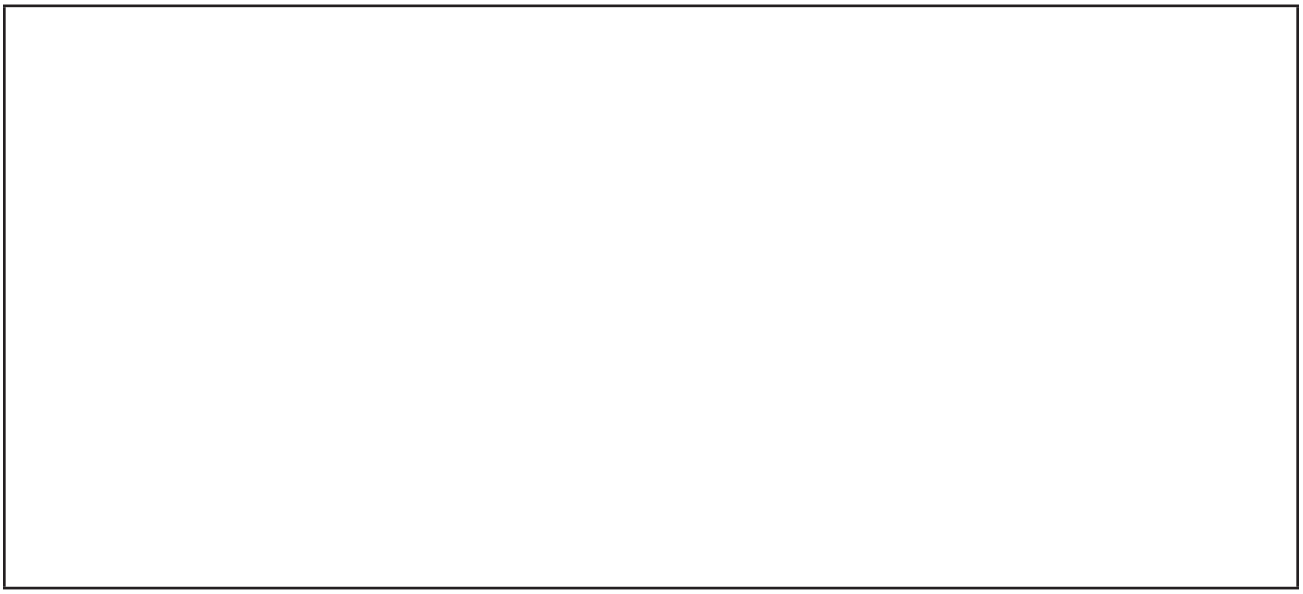
Which menu item or items will you work on for this activity?

What is the essence of the item that you think must be preserved during the variation?

Sketch some ideas regarding how to turn a menu item into a handheld one.



Refine your ideas.



What engineering considerations come into play in making your item a handheld one?

Create a prep list and plan of attack for this game.

Reflection Questions

❶ If you had to grade yourself on your performance on this game, what grade would you give yourself and why?

❷ What did you do that you feel was particularly innovative and worked well?

❸ If you could do it all over again what would you do differently?

❹ What's the most important thing you learned in playing this game?

❺ Describe a real-world application different from the scenario where you might apply something you did in this game.

Variations to Game

This game can be adapted for any number of recipe items and flavor profiles. A different menu could easily be substituted for the one given. To keep the game challenging, the foods in the menu should be those that do not easily lend themselves to being hand-held. Students can work individually or in teams. If time is limited, advance steps can be taken, including cleaning and par-cooking some ingredients or selecting recipes like green salads, more dependent on assembly than cooking. The essential element of the game that should be maintained is the experience of solving this specific problem.

Game: Guess Who's Coming to Dinner

"You are quite a cook. I was here at your restaurant last week. I had the braised pork shank—to die for! No really, you're good. Your food is delicious. And not only that. You have a way with menu design and flavor combinations that make the whole sequence exquisite.

"There are just a few things you need to know before we order. The kids only eat buttered noodles. My husband has allergies to wheat, black pepper and eggs. My daughter's a vegetarian but eats fish and doesn't really like vegetables. I eat everything. But nothing too crunchy—I have a toothache."

For a chef this is an exaggeration of an all too familiar and frustrating but ultimately important conversation. Who are cooks here for if not for guests? But sometimes adapting to their needs can be challenging and frustrating. It is easy to substitute egg whites for whole eggs in making an omelet to accommodate a heart healthy diner. It is much more challenging to ensure that every item on the plate — including stocks, sauces and component ingredients—is entirely free of garlic and black pepper to accommodate a food intolerance.

Customizing recipes to the specific needs of guests is a challenging problem in many cases and is also an important thing we can do as cooks. It is the obligation of the hospitality professional to meet the needs of the guest. A mistake of, for example, forgetting that a vinaigrette is made with peanut oil or that the codfish broth is made with shrimp shells to add flavor and color can be a lethal error, not the best way to get a mention in the local newspaper!

Of course the flip side to this challenge is that chefs spend a lot of time and effort to design menu items and prepare great food. It frustrates us when someone asks for the chicken without the salsa verde, which, we all know, is the best part; asks for mashed potatoes without butter, since they are prepared in advance and taste so much better this way; or messes up our rhythm on the line by asking for a side from one dish to be paired with a center-of-plate item from another. Many cooks find guests who have these special requests to be annoying. Such an attitude reminds me of what our culinary school colleagues jokingly say around registration and advisement time, "This school would be great if it weren't for the pesky students." Just as we know there could be no school without students, there can be no hospitality industry without guests, so accommodating special needs is both the pain and the pleasure.

This game challenges you to take problem solving in accommodating guests to extremes. After this, an allergic, picky or dieting customer in the real world will seem easy! Have fun and good luck!

Imagine a guest is allergic to onions. What typical components in an a la carte restaurant would have to be avoided in cooking for this guest if she ordered a roast chicken with pan gravy, roasted potatoes and creamed spinach?

Arugula Salad with Red Onion and Parmesan Crostini

Sautéed Fish of the Day with Shaved Fennel and Confetti Orzo

Crème Brulee

Here is a standard menu you may use as a starting point:

- Next, cut out the table from the page and randomly draw one card from each column:
- Next, sketch out how you might adapt your menu items to the parameters listed on your cards—one health concern, one quirk and the age of the diner. Age may or may not be a relevant concern.

Game Specifications

ANTICIPATED TIME:	3–4 HOUR LAB
Concept Presentation	20 minutes
Student Planning and Station Set-up	30 minutes
Cooking	80 - 140 minutes
Tasting, Discussion and Debriefing	30 minutes
Clean-up	20 minutes

Ingredients Needed

Note: students should form teams of 2–3. Depending on class size all or part of the menu may be used. Quantities are recommended for a class of 18 and should be adjusted depending on class size, time allowed and how much of the menu is being used. Finally, keep in mind that the original menu from the game description need not be made—one of the instructor's or students' design could be substituted. In addition to a variety of pantry items and staples always on hand:

Game Details

This game is for a student with medium to advanced skills. You should be comfortable in a kitchen and be familiar with basic preparations and applications, at minimum. There is no maximum skill level. Even professional chefs have fun with and are challenged by this game.

In this game you are challenged to think creatively to solve a problem—how to adapt a menu for various constraints ranging from common, everyday challenges, to unlikely scenarios. The main rules are:

- Your adaptation should be as creative as you like but should reference the original menu.
- You most honor every limitation provided in your adaptation.

ARUGULA SALAD WITH RED ONION AND PARMESAN CROSTINI	SAUTÉED FISH OF THE DAY WITH SHAVED FENNEL AND CONFETTI ORZO	CRÈME BRULEE	OTHER POSSIBLE INGREDIENTS, ESPECIALLY FOR VARIATIONS:
3 bunches arugula 1 red onion 1 baguette ¼ pound parmesan cheese Variety of oils and vinegars for vinaigrette	One small whole fish per team (good opportunity to practice filleting) 2 bulbs fennel 1 lb. orzo A variety of vegetables for "confetti" (good opportunity to practice brunoise)	1 qt. Milk 1 pt. Heavy Cream 1 dozen Eggs Sugar	Lactaid Soy Milk Rice Potatoes Matzoh Tapioca Chocolate

HEALTH ISSUE	QUIRK	AGE
HEALTH ISSUE: Low Sodium (hypertension)	QUIRK: Hates vegetables	AGE: Young Adult
HEALTH ISSUE: Lactose-free (lactose intolerance)	QUIRK: Loves rich food	AGE: Child
HEALTH ISSUE: Fat free	QUIRK: Likes food spicy	AGE: Senior
HEALTH ISSUE: Difficulty swallowing (dysphasic)	QUIRK: Likes food with high-impact flavors	AGE: Teen
HEALTH ISSUE: Gluten-free (celiac)	QUIRK: Likes beautifully-presented food	AGE: Baby Boomer
HEALTH ISSUE: Seafood Allergy (food allergy)	QUIRK: Likes exotic flavors	AGE: Toddler

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Student Guidelines

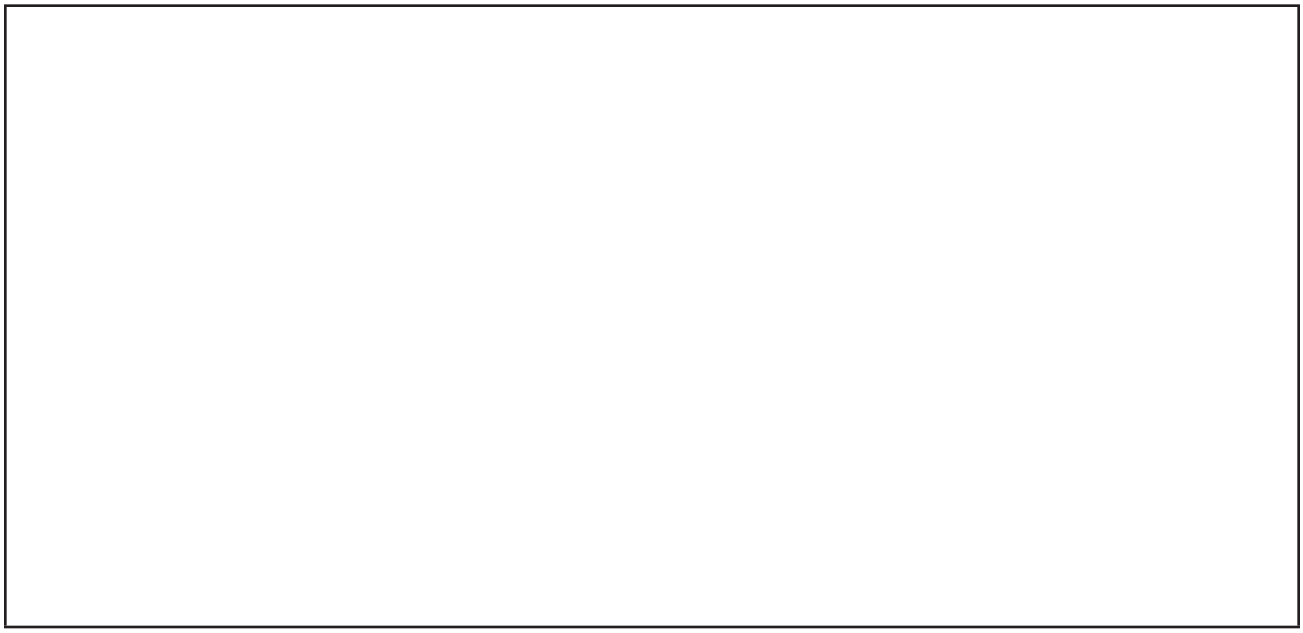
- **Safety First.** Put knife safety and safe food handling at the fore.
- Use the tools in the flavor chapter to help you brainstorm initial ideas and guide you through the game. Discuss merits of all suggestions and reach consensus on leading concepts. Develop concept fully, including how the concept meets each parameter before beginning cooking.
- Write a plan for recipe execution. Do not be afraid to alter the design as you go.
- Taste as you go. For unsafe or raw ingredients, cook a small sample to determine seasoning balance and flavor.
- Divide the prep work among the team.
- Maintain constant communication.
- Present finished product in a way that is visually appealing and is served at the appropriate temperature. Use the plating template in the resource section as a guide.
- Keep an eye on the clock—start long-cooking items immediately and quickly assemble your mise-en-place.

Supporting Activities

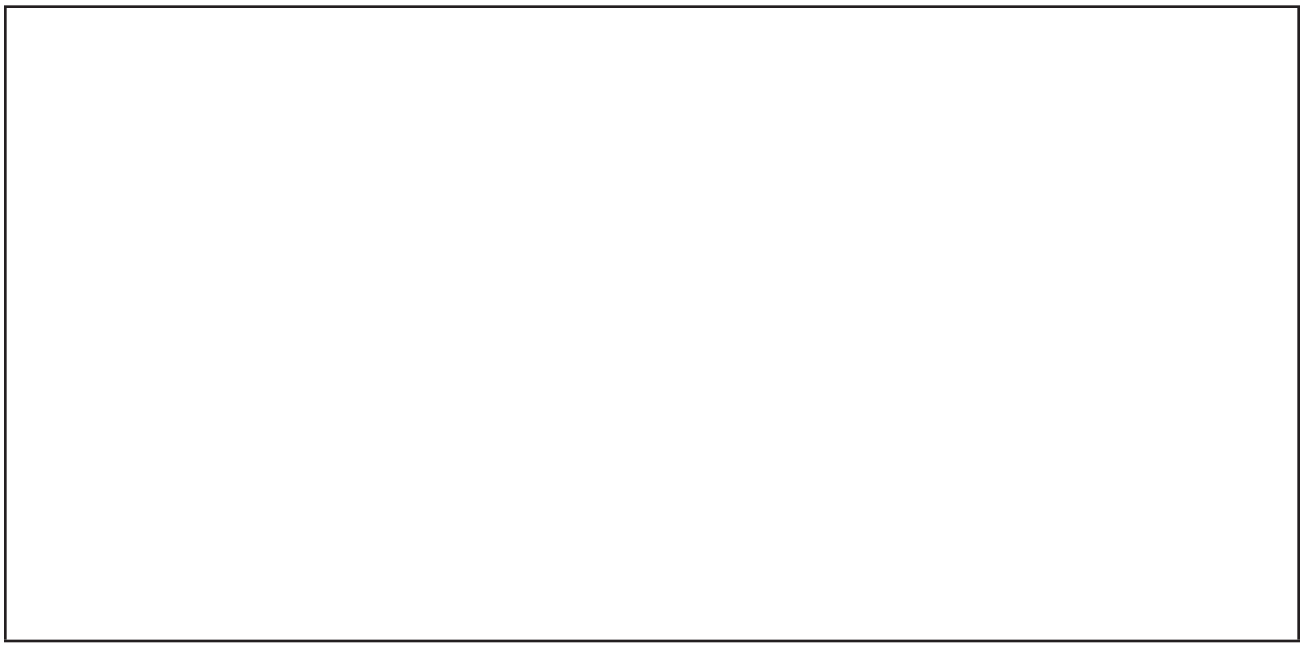
Which cards did you draw for this activity? How do you anticipate that these factors may influence the approach you take to the game?

What is the essence of the item that you think must be preserved during the variation?

Sketch some ideas regarding how to modify these items to meet the parameters.



Refine your ideas.



How might you evaluate the success of your approach?

Create a prep list and plan of attack for this game.

Reflection Questions

❶ How easy or difficult was it to accomplish this task? What did you do that you feel was particularly innovative and worked well?

❷ If you could do it all over again what would you do differently?

❸ What's the most important thing you learned in playing this game?

❹ Have you had an experience like this in industry? If so, how did you deal with it? If not, how would you anticipate dealing with it?

❺ Do you feel it is appropriate for diners to make special requests in restaurants? Or should they eat somewhere else? Support your answer with examples. How might your opinion change if the question were applied to a managed care dining setting like a nursing home?

Variations to Game

This game can be adapted for any number of recipe items and flavor profiles. A different menu could easily be substituted for the one given. To make the game easier, teams could draw only one or two cards. Students can work individually or in teams. If time is limited, advance steps can be taken, including cleaning and par-cooking some ingredients or selecting recipes like green salads, more dependent on assembly than cooking. The essential element of the game that should be maintained is the experience of solving the problem of adapting a menu for various needs, preferences and restrictions.

Game: Technique Trio

Sometimes in improvising, cooks rely on tried and true platforms and techniques. Dredge a tender piece of meat, poultry or fish in flour, sauté in clarified butter and make a small sauce with shallots, butter, wine and herbs is a pretty reliable classic French formula for success. But this game may challenge you to stray from your comfort zone as a cook. You may be comfortable working the range but how about using the same ingredients in a savory pastry application?

This game, Technique Trio, challenges you to cook from a mystery basket using specific techniques. It is also a good opportunity to test yourself on:

- Whether you have mastered various techniques
- Whether you can use these techniques in an improvisational way.

Unlike the last game, *Guess Who's Coming to Dinner*, that had you performing a task you will do often in industry—adapting a menu or recipe for a specific dietary need—this problem-solving game is a bit more "out there."

That also means it can be more fun! Being able to creatively and incorporate a specific culinary technique into a dish is an important skill. Being able to do so "on the fly," in an improvisational way is a great skills-building exercise. We learned, from the passage on Molecular Gastronomy in Chapter Four, that combining seemingly incongruous ingredients or techniques can lead to exciting new culinary experiences. So give this a whirl and see if you create something totally unexpected – and amazing!

Game Details

This game is for a student with medium to advanced skills. You should be comfortable in a kitchen and be familiar with basic culinary techniques outlined below. There is no maximum skill level. Even professional chefs have fun with and are challenged by this game.

In this game you must use three specific culinary techniques in preparing a dish from a mystery basket of ingredients. These techniques will range from moist and dry heat cooking methods, sauces, standard baking preparations and knife skills. The platforms presented in Section I of this book and your basic culinary text will give you helpful reminders of some of these techniques.

The instructor will provide you with a mystery basket of ingredients. This may be one recommended in the text or an entirely different basket.

Next, your team should randomly draw THREE culinary techniques from the table below, cut into cards:

Specifications for Game

ANTICIPATED TIME:	3–4 HOUR LAB
Concept Presentation	20 minutes
Student Planning and Station Set-up	30 minutes
Cooking	80–140 minutes
Tasting, Discussion and Debriefing	30 minutes
Clean-up	20 minutes

Ingredients Needed

Note: students should form teams of 2-3. Quantities are recommended for each team and should be multiplied by the number of teams. Nearly any type of mystery basket could be used but it is recommended to give the same basket ingredients to each team so that teams can see very different results depending on the techniques employed.

In addition to a variety of pantry items and staples always on hand:

SUGGESTED MYSTERY BASKET

1 lb. meat, poultry, fish, seafood or tofu
One bunch green vegetable (about ½ pound)
One bunch red, yellow, or white vegetable (about 1 pound)
Starch or grain (about ½ pound)

Braise	Starch-Thickened Sauce	Puree
Sauté	Baked En Croute	Tourner
Pan-Fry	Fine Brunoise	Steam
Deep Fry	Chiffonade	Stuff
Roast	Reduction Sauce	Stew
Stir-Fry	Compound Butter	Julienne
Warm Emulsified Sauce	Grill/Broil	Cold Emulsified Sauce

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Student Guidelines

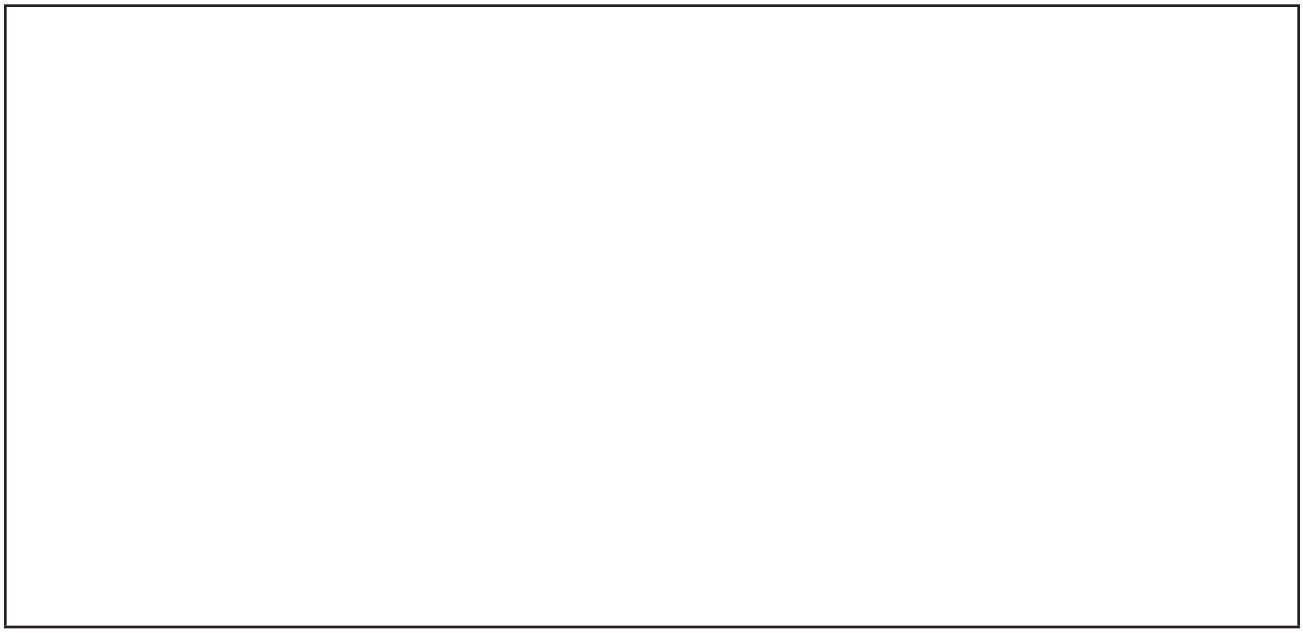
- Safety First. Put knife safety and safe food handling at the fore.
- Take time if needed to review the techniques being used. Base your creations on other recipes if needed.
- Use the tools in the flavor chapter to help you brainstorm initial ideas and guide you through the game. Discuss merits of all suggestions and reach consensus on leading concepts.
- Write a plan for recipe execution. Do not be afraid to alter the design as you go.
- Taste as you go. For unsafe or raw ingredients, cook a small sample to determine seasoning balance and flavor.
- Divide the prep work among the team.
- Maintain constant communication.
- Present finished product in a way that is visually appealing and is served at the appropriate temperature. Use the plating template in the resource section as a guide.
- Keep an eye on the clock—start long-cooking items immediately and quickly assemble your mise-en-place.
- Be sure to highlight all of the techniques drawn. If making julienne cuts, for example, make it a prominent feature of the dish and not an afterthought.
- Compose a dish with a variety of flavors, textures and shapes for appeal.

Supporting Activities

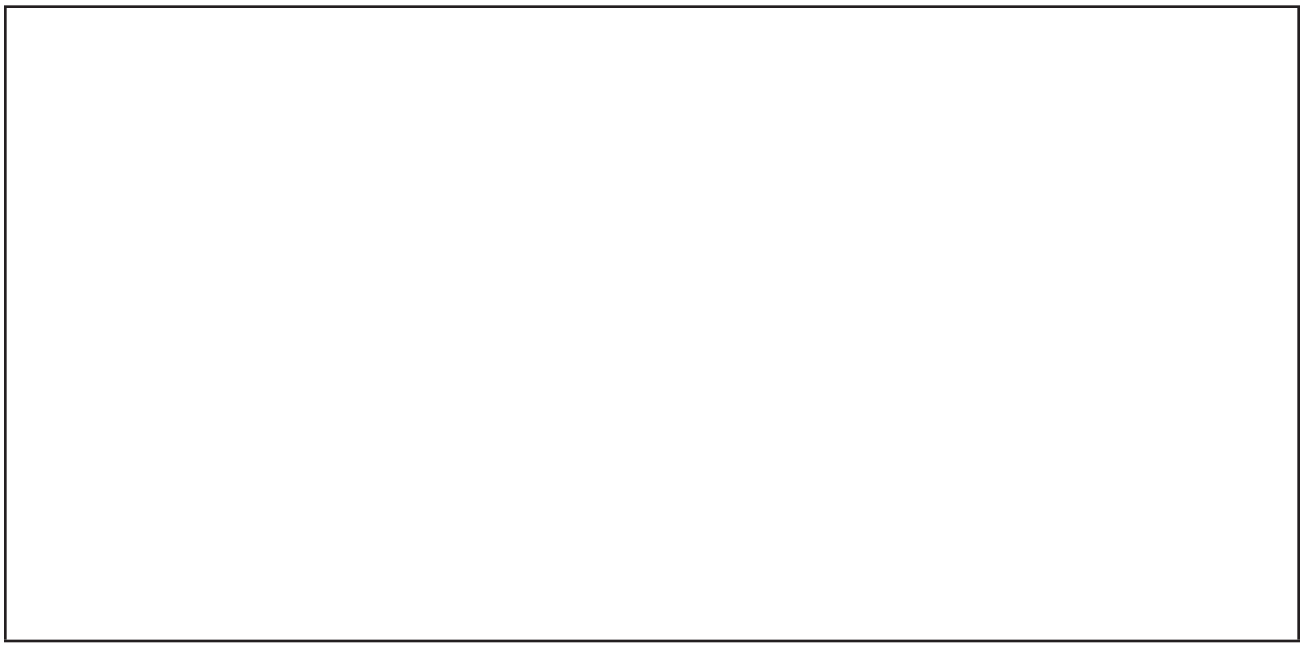
Which cards did you draw for this activity?
How do you anticipate that these factors may influence the approach you take to the game?

Looking at the ingredients and techniques can you begin to see ingredient and technique pairings that may work well together? Describe.

Sketch some ideas regarding how you might combine these ingredients and techniques.



Refine your ideas.



How might you evaluate the success of your approach?

Create a prep list and plan of attack for this game.

Reflection Questions

❶ If you had to grade yourself on your performance on this game, what grade would you give yourself and why?

❷ How easy or difficult was it to accomplish this task? What did you do that you feel was particularly innovative and worked well?

❸ If you could do it all over again what would you do differently?

❹ What's the most important thing you learned in playing this game?

❺ Did you identify any skills or techniques where you need a refresher? Describe.

Variations to Game

Nearly any mystery basket and techniques could be used. Different baskets could be used and additional techniques could be added. The essential element of the game that should be maintained is the experience of creating a dish incorporating and highlighting specific culinary techniques.

Game: Today's Special

Look in the refrigerator at a food service establishment where you work or at your culinary school. Chances are there is some food product that was purchased in excess, is nearing the end of its life, and needs to be used soon or will go to waste. One of the challenges of managing a food establishment is that all of the inventory is decaying at varying rates. Some products like fish need to be used almost immediately and others, like oil, will last for many weeks but eventually everything in inventory will need to be used—hopefully by being prepared for sale—or discarded.

The chef's challenge, then, is to profitably use every ingredient in inventory while it can be safely, deliciously and profitably consumed—before the end of its shelf life. This is a common problem in industry and an important contributing factor to daily specials and creative family meals (meals for staff). Many specials employ great culinary creativity to both maximally utilize products and provide appealing meals to guests that showcase the chef's talents; many beloved family meals have become hits on a restaurant menu.

This game, Today's Special, will be very familiar to viewers of the television show Iron Chef. The problem solving exercise is to incorporate a featured ingredient in a variety of menu items: soup, salad, appetizer, entrée or dessert in a way that will appeal to guests and be profitable in a foodservice setting.

Game Details

This game is for a student with beginning to advanced skills. You should be comfortable in a kitchen and be familiar with basic preparations and applications, at minimum. There is no maximum skill level. Even professional chefs have fun with and are challenged by this game.

In this game you are challenged to think creatively to solve a problem—how to feature a food item in one or more dishes.

First, select a featured item randomly or per your instructor's directions. Some possibilities include:

Specifications for Game

ANTICIPATED TIME:	3–4 HOUR LAB
Concept Presentation	20 minutes
Student Planning and Station Set-up	30 minutes
Cooking	80–140 minutes
Tasting, Discussion and Debriefing	30 minutes
Clean-up	20 minutes

Ingredients Needed

Note: students should form teams of 2-3. Because this game has one primary featured ingredient, there should be a variety of other ingredients on hand.

In addition to a variety of pantry items and staples always on hand:

- Featured ingredient: about one pound per team

OTHER INGREDIENTS TO HAVE ON HAND FOR VARIATIONS MIGHT INCLUDE:

Stock	Butter
Onions	Phyllo Dough
Garlic	Puff Pastry
Carrots	Pasta
Celery	Rice
Flour	Quinoa
Eggs	Potatoes
Milk	Shallots
Wonton Wrappers	Oils
Chocolate	Vinegars
Sugar	Spices

Student Guidelines

- **Safety First.** Put knife safety and safe food handling at the fore.
- Use the tools in the flavor chapter to help you brainstorm initial ideas and guide you through the game. Discuss merits of all suggestions and reach consensus on leading concepts.
- Write a plan for recipe execution. Do not be afraid to alter the design as you go.
- Taste as you go. For unsafe or raw ingredients, cook a small sample to determine seasoning balance and flavor.
- Divide the prep work among the team.
- Maintain constant communication.
- Present finished product in a way that is visually appealing and is served at the appropriate temperature. Use the plating template in the resource section as a guide.
- Keep an eye on the clock—start long-cooking items immediately and quickly assemble your mise-en-place.

Supporting Activities

Which ingredient were you given or did you select for this game? What immediately comes to mind as associated with that ingredient?

What other flavors might pair well with the featured ingredient? What cooking techniques could be used to highlight the flavors?

Potatoes	Mushrooms	Chicken
Fresh Pasta Dough	Pork Shoulder	Apples
Salmon	Chocolate	Grapes
Cheddar Cheese	Parmesan Cheese	Spinach
Bacon	Garlic	Onions
Eggs	Peaches	Fennel
Asparagus	Corn	Peanuts

✂

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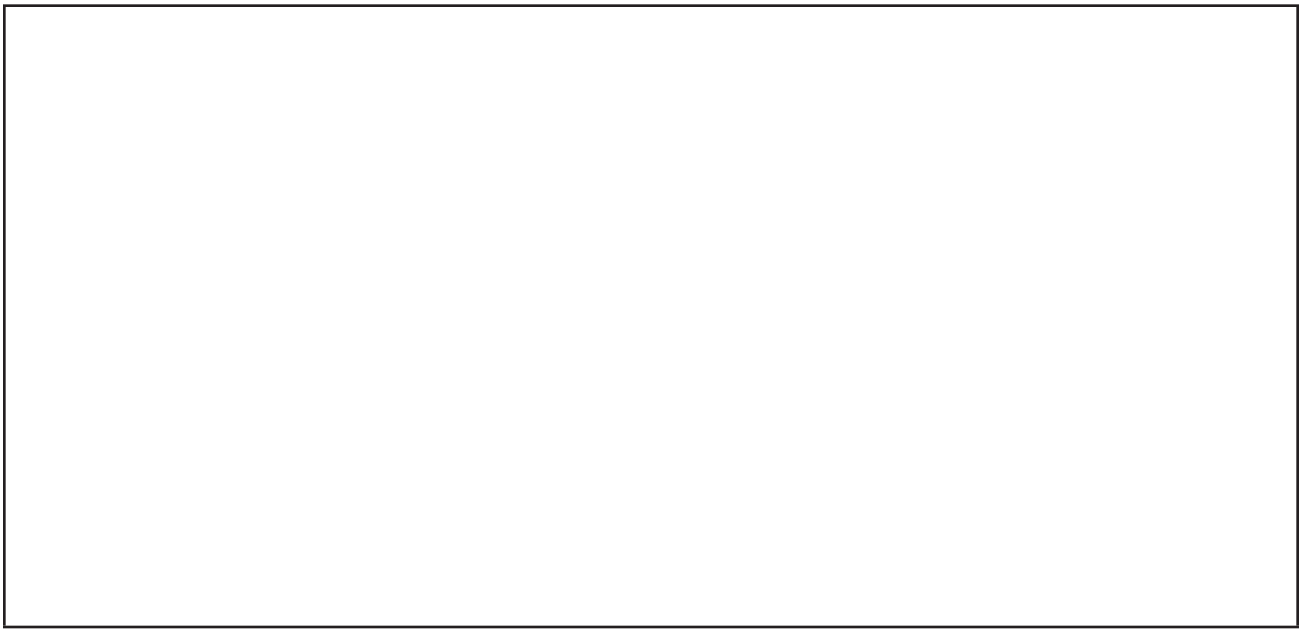
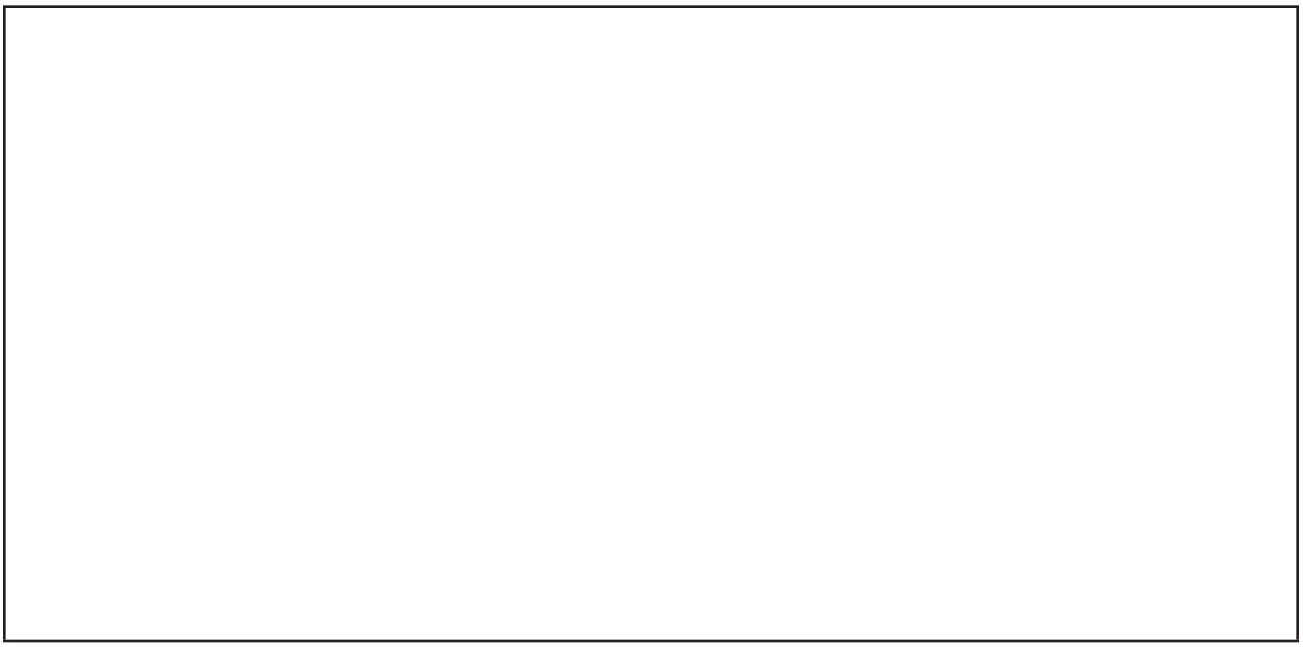
Sketch some ideas regarding how you might feature this item.



Refine your ideas.



How would the item be presented?

How might you evaluate the success of your approach?

Create a prep list and plan of attack for this game.

Reflection Questions

❶ If you had to grade yourself on your performance on this game, what grade would you give yourself and why?

❷ How easy or difficult was it to accomplish this task? What did you do that you feel was particularly innovative and worked well?

❸ If you could do it all over again what would you do differently?

❹ What's the most important thing you learned in playing this game?

❺ Have you had an experience like this in industry? If so, how did you deal with it? If not, how would you anticipate dealing with it?

Variations to Game

Depending on time, skill levels, and ingredients available teams could make anywhere from one to four dishes featuring their ingredient. Again it is instructive for each team to have the same item to feature so that comparisons can be drawn. Further restrictions could be introduced such as desserts only or a soup and entrée both required.

Game: Alternative School Lunch

It is a popular pastime to complain about the quality or palatability of public school lunches. One reason, of course, is that there are a host of parameters that shape offerings.

Brainstorm a list of parameters that influence school lunch menu choices:

In this game you are challenged to develop a school lunch that balances the need to run an efficient operation with the need to provide wholesome and delicious food, all with a variety of constraints.

Student Guidelines

- Safety First. Put knife safety and safe food handling at the fore.
- Taste as you go. For unusual combination experiments, try a small amount before proceeding with the whole batch wherever possible.
- Divide the prep work among the team.
- Maintain constant communication.
- Present finished product in a way that is visually appealing and is served at the appropriate temperature. Use the plating template in the resource section as a guide.
- Guide classmates through tasting process.

Some parameters:

- The dish cannot have an estimated cost more than one dollar per portion.
- The dish cannot use any specialty equipment such as mandolines, slicers, grills, etc. Only: knives, pots, pans, oven and range.
- The dish must contain foods from all food groups.
- The food must be culturally relevant to a specific group of students but appeal to a general population as well.
- It must take less than one hour to prepare.
- It must include at least one whole grain and one reduced fat item.
- You must be able to articulate how you've fulfilled the parameters above.

Game Details

This game is for a student with basic to advanced skills. You should be comfortable in a kitchen and be familiar with basic preparations and applications, at minimum. There is no maximum skill level. Even professional chefs have fun with and are challenged by this game.

For fun presentation and authenticity, school-style lunch trays should be used for plating.

A variety of pantry items and low-cost foods such as inexpensive cuts of meat, fish and poultry, root vegetables, leafy vegetables, fruits, starches and grains should be made available.

Specifications for Game

Anticipated Time:	2.5 hours
part i	
Concept Presentation	10 minutes
Menu Concept Planning and Formulation	15 minutes
Game Plan	5 minutes
part ii	
Station Set-up and Mise en Place	10 Minutes
Cooking	60 Minutes
Tasting and Comments	20 Minutes

Supporting Activities

How do you think you can design a menu that meets all these parameters?

Sketch some preliminary ideas.

Refine your ideas.

Create a work plan for creating the menu. Double check this plan against the parameters.

Create a prep list.

Reflection Questions

❶ Describe the process you followed during today's game. What worked well? What could have been better?

❷ What's something you learned about cooking from this activity? What's something you learned about yourself from this activity?

❸ Which dishes would you want to see at school lunch? Why? Would they work within the parameters?

Variations to Game

Depending on the level of the students and the instructional goals, the parameters of this game could be made much more specific to include specific nutritional targets, more specific costing targets, specific surplus commodities or explicit cultural relevancy references.

Chapter Summary

The ability to use improvisation to solve problems is a mark of a good chef. Good chefs prevent problems before they happen and are skilled at handling those that inevitably arise. Some of the games in this chapter represent very realistic scenarios and others are fun but definitely not everyday situations! Regardless, having an opportunity to practice thinking and cooking creatively to solve problems will serve you well in your career.

The games in this chapter also taught us about customizing to meet specific guest needs, highlighting a featured ingredient, and showcasing unexpected combinations. The games developed a basic understanding of problem solving and emphasized the skills required to transform a potentially negative experience into a positive one.

Chapter 6 Assessment Questions

❶ Define and give an example of a problem, as the term is used in this chapter.

❷ Describe the process of solving a problem in one of the games. What challenges or obstacles did you face? Where did your team excel?

❸ Describe the cooking process you used for each game. What worked well? What would you have done differently?

❹ Describe your group's decision making process. Where did you easily agree? Where was more debate involved? How did you ultimately reach decision points?

❺ Assess your final outcome. What worked in your concept? What didn't? What would you do differently in the future?

Assessment Rubric for Problem-solving Games

CRITERIA	PROFESSIONAL	DEVELOPING	NOVICE
Cooking Advanced Culinary Techniques	Student demonstrated professional-level knife skills and cooking techniques, needing little support. Student worked neatly, observing all safety and sanitation guidelines.	Student demonstrated some professional-level knife skills and cooking techniques, needing support or correction. Student did not neatly maintain station or did not observe some important safety and sanitation guidelines.	Student demonstrated developing skills and cooking techniques, needing help. Student did not maintain station or failed to observe critical safety and sanitation guidelines.**
Problem Solving Skills	Student clearly identified problem posed in the game and designed a creative solution following game guidelines.	Student identified problem posed in the game and designed a workable solution following game guidelines.	Student failed to clearly identify problem posed in the game or designed an inappropriate solution.
Adaptive skills Working in groups	Student was an active and engaged participant in the team and team members could clearly point to student's contribution. Student fully understood scenario and quickly adapted to situation, helping other students along.	Student worked with team but was not a key contributor to the final result. Student understood scenario and took direction from classmates in order to adapt to the situation.	Student did not show evidence of engagement with team and did not significantly contribute to the result. Student misunderstood scenario or did not adapt to situation.
Written Communication Informal writing and reflection	Student work exhibited thoughtful reflection on process and included concrete and significant conclusions.	Student work exhibited reflection on process and awareness of issues.	Student work lacked reflection on process or awareness of issues.
Style and Creativity Professional presentation	Student brought innovative and creative ideas: dish was attractive and restaurant quality.	Student did some innovative or creative things: dish was acceptable but unremarkable.	Student did not show evidence of creativity or innovation: dish was only attention-getting due to inadequacies.

*Note: Criteria could be given equal or various weights at instructor's discretion and tied to letter or number grades as desired.

**Note: Critical Safety and Sanitation Violations include: Cross-Contamination, Time/Temperature Violations, and knife handling hazardous to self or others.