

## Cooking Module 1: Safety in the Kitchen

## BACKGROUND INFORMATION

Food safety describes the practice of handling, preparing, and storing of foods to prevent foodborne illness. An essential piece of equipment for storing foods is the refrigerator. Refrigeration of food slows bacterial growth. Bacteria exists everywhere in nature including soil, water, air, the foods we eat, and even on our hands, skin, and inside our bodies. Bacteria will rapidly grow when they have moisture, favorable temperatures, and nutrients. Some bacteria are harmful to our bodies in small quantities, while other bacteria are only harmful once they grow too large enough quantities. Bacteria will grow most rapidly in temperatures between $40-140^{\circ} \mathrm{F}$. This temperature range is referred to as the "Danger Zone" and it is best to be avoided. This is why it is recommended that refrigerator temperatures be kept below $40^{\circ} \mathrm{F}$ and that hot foods be cooked to and kept above at least $140^{\circ} \mathrm{F}$. Some foods, like meats, poultry, and leftovers should be heated to even higher temperatures to prevent bacterial growth.
Along with ensuring proper temperature control of foods, foodborne illness can also be prevented by avoiding cross-contamination. Crosscontamination can happen anywhere in the kitchen and involves foods that are ready-to-eat, such as raw fruits and vegetables, being exposed to bacteria from foods that should be cooked before eaten, such as raw meats. The general
guidelines of storing food in the refrigerator to prevent crosscontamination are to store all leftovers and ready-to-eat foods on the upper shelves. Dairy items, including milk and cheese, and eggs should be stored on the middle shelves. Raw meats, seafood, and poultry should be stored in sealed containers or wrapped securely and stored on the bottom shelf. This will prevent any juices that may leak from contaminating other foods. The refrigerator door can be used to store butter, condiments, nut butters, juices, water, and dairy substitutes.
Cross-contamination can also occur outside of the refrigerator. During food preparation, it is important to wash your hands before and after handling food to decrease the chances of contaminating foods. It has been estimated that over $50 \%$ of diarrheal disease can be prevented by regularly washing hands with hot soapy water for at least 20 seconds. Aside from improper hygiene, cross-contamination can occur on counter tops and cutting boards. Make sure when preparing foods to keep all raw meat, poultry, and seafood away from other foods. After cutting raw meat, poultry, or seafood, make sure to thoroughly wash hands and clean the cutting board, knife, and any utensils used with hot soapy water before moving onto the next task. It is also a good idea to completely switch equipment if possible before preparing ready-to-eat foods and to prepare ready-to-eat foods prior to others.

## CONCEPTS AND VOCABULARY

Bacteria: Naturally occurring microscopic organisms that can be harmful or beneficial to the body

Cross-contamination: The transfer of illnesscausing microorganisms from one food or surface to another

Danger Zone: The temperature range where bacteria grow the most rapidly, between $40-140^{\circ} \mathrm{F}$

Foodborne illness: Sickness caused by contaminated foods

Food safety: The practice of handling, preparing, and storing foods to prevent foodborne illness

## MATERIALS NEEDED

Flip chart paper
Writing utensils
Light colored cutting boards (preferably white), one per group
Facilitator tip: This activity will also work with a large piece of paper, such as flip chart paper, folded into the size of a common cutting board
Two different colors of washable craft paint, enough for each group to have about $1 / 4$ cup of each color
Small container or cups, two per group
Sponge, one per group
Kitchen towel, one per group
GloGerm, one small bottle
Blacklight, one per group
Stopwatch, one per group

TIME REQUIRED
15 to 20 minutes

## SUGGESTED GROUPINGS

Small groups of 3 to 4

## GETIING READY

$\square$ Pour the craft paint into the small containers. Each group should have two containers, one container of each paint color.
$\square$ Organize youth into small groups of 3-4 youth.
Facilitator tip: These can be the same groups that were formed in previous lessons. By doing so, the youth may continue developing teamwork skills with the same group members.
$\square$ Provide each group with one sheet of flip chart paper and writing utensils to answer opening questions.

## OPENIING QUESTIONS

Ask the youth to respond to each question/prompt below by recording their responses on the flip chart paper provided and sharing their ideas verbally.

- Explain what you know about how food can make you sick.
- Explain what you know about food safety strategies.


## PROCEDURE (FXPERIENCING)

1. Provide each group with a cutting board, two containers with different colored paints, one sponge, a kitchen towel, and a stopwatch.
2. Explain to youth that GloGerm is a lotion-based product that is meant to represent harmful bacteria and glows when illuminated with a blacklight. Go around to willing youth and squeeze a dime-sized amount of GloGerm onto their hands, instructing them to rub it around their hands.
3. Explain to the youth that they will be using the different colored paints to represent raw meats and ready-to-eat foods.
4. Explain that the youth will need to take their sponge and dip it into one of the colors. They will then use the sponge to spread the paint onto their cutting board. Afterwards, they will wipe the cutting board down as much as they can with a kitchen towel in 10 seconds, keeping track of the time with the stopwatch.
5. Ask youth to repeat the same process with the other paint color and time the process for 10 seconds again using the stopwatch.
6. Provide each group with a blacklight.
7. Ask youth to shine the blacklight onto the cutting board, sponge, kitchen towel, and their hands to see where the "germs" spread.
8. Ask youth to wash their hands and then shine the blacklight on their hands again to see how well they washed away the "germs."

## SHARING, PROCESSING, AND GFNERAIIZING

Have youth share their reactions to how well they were able to clean their cutting boards between paint colors and to how far the "germs" spread throughout the activity.

Follow the lines of thinking developed through the youth's thoughts, observations, and questions as they share their experience. If necessary, ask more targeted questions.

- Explain what you observed when shining the blacklight onto your items.
- Explain why it is important to clean and sanitize kitchen equipment.
- Explain what you think are the major contributors to foodborne illnesses.
- Describe some things you can do to stay food safe.


## CONCEPT AND TERM DISCOVERY/INTRODUCTION

Make sure that the youth understand what causes foodborne illnesses and how they can be prevented. Youth should understand that cross-contamination can play a major role in increasing the incidence of foodborne illnesses. Youth should also understand how proper handwashing and preparation methods can decrease the chance of cross-contamination. Additionally, make sure that key vocabulary terms are either discovered by the youth or introduced to them: bacteria, Danger Zone, and food safety.

## CULINARY APPLICATION

## MATERIALS NEEDED

## TIME REQUIRFD

 20 to 30 minutesSafety in the Kitchen (Appendix C1.1), one per group<br>Food Safety Charade Cards (Appendix C1.2), one set per group<br>Charade Prop Cards (Appendix C1.3), one set per group<br>Observation Sheet (Appendix C1.4), one per group<br>Stopwatch, one per group<br>Common cooking equipment, enough for all groups

## Materials provided in curriculum, one per group

## GETIING READY

$\square$ Make double-sided copies of Safety in the Kitchen (Appendix C1.1), one for each group.
$\square$ Make copies of Food Safety Charade Cards (Appendix C1.2), one set for each group. Cut the cards out along the dashed line.
$\square$ Make copies of Charade Prop Cards (Appendix C1.3), one set for each group. Cut the cards out along the dashed line.

Facilitator tip: It is recommended that the above appendices be laminated to allow them to be more easily handled by youth and reused.
$\square$ Makes copies of Observation Sheet (Appendix C1.4), one sheet for each group.
$\square$ Designate cooking areas and equipment for groups.

## PROCEDURE (FXPERIENCING)

1. Orient youth to equipment available to them and ask youth to become familiarized with the cooking utensils provided in the cooking space.
2. Ask youth to setup their cooking space as if they were going to make a meal that requires chopping and cooking ingredients.
3. Provide each group with Safety in the Kitchen. Ask youth to follow along with the guide to check their setups and make any changes that are needed.
4. Once each group's cooking space is setup properly, provide each group with Food Safety Charade Cards, Charade Prop Cards, an Observation Sheet, and a stopwatch.
5. Explain to youth that they will be playing charades using the Food Safety Charade Cards, which contain both proper and improper food handling techniques.
6. Explain to youth that with charades rules, each youth will take turns silently reading a card and acting out what it says without speaking for a maximum of 10 seconds. Youth can keep track of the 10 seconds using the stopwatch. They should not share whether the card is proper or improper with their group members, who instead should guess what they are acting out and
whether it is proper or improper.
7. Explain that youth can use anything from their cooking setup and the Charade Prop Cards to help them in acting out the Food Safety Charade Cards.
8. Ask youth to record the improper food handling techniques and what should be done to maintain food safety instead on their Observation Sheet.

## SHARING, PROCESSING, AND GFNERAIIZING

Have youth share their reactions to how foodborne illness can spread in the kitchen and why it is important to follow safe food handling techniques. Follow the lines of thinking developed through the youth's thoughts, observations, and questions as they share what they discovered about food safety.

## HONE CONCEPT APPLICATION

## MATERIALS NFEDED

TIME REQUIRED
5 to 10 minutes

Food Safety Stoplight (Appendix C1.5), one per youth

## Materials provided in curriculum

## GETIING READY

$\square$ Make copies of the Food Safety Stoplight (Appendix C1.5), one for each youth.

## PROCEDURE (FXPFRIFNCING)

1. Provide each youth with a Food Safety Stoplight.
2. Explain to the youth that a food safety hazard refers to the biological, chemical, and physical conditions in a food preparation site that can cause danger or illness.
3. Ask youth to complete the Food Safety Stoplight by picking a food preparation space and determine the location of potential hazards, describe the hazards, and come up with potential solutions to avoid food safety hazards.

## SHARING, PROGESSING, AND GFNERAIIZING

Have the youth share their Food Safety Stoplight and discuss the locations they observed, the possible food safety hazards in those spaces, and how they think the hazards could be avoided. Follow the lines of thinking developed through the youth's thoughts, observations, and questions as they share what they discovered about food safety hazards.
 and face the tip toward the floor as you hold it by your side

- Always place a knife where it is visible to everyone
- Never catch a falling knife! Instead, back away from the falling knife
When handing a knife off to another person, the safest way is to place the knife on a clean stable surface and have the recipient pick up the knife themselves






| Improper Food Handling | What Change Would You Make? |
| :--- | :--- |
|  |  |
|  |  |
|  |  |


| Improper Food Handling | What Change Would You Make? |
| :--- | :--- |
|  |  |
|  |  |
|  |  |

Directions:
Observe any space where food is prepared and complete the Food Safety Stoplight for three potential food safety hazards.

Red: Record the locations of the potential food safety hazards.

Yellow: Record the potential food safety hazards.

Green: Record solutions for the potential food safety hazards.


Cooking Module 2: Chop, Chop, Dice

## BACKGROUND INFORIMATION

Cooking skills allow for the ability and confidence in food preparation. Although cooking can be quite fun, it can also be dangerous due to sharp objects and high heat. Anyone can learn to cook, but it is important to do so while also being safe. Knives, a very common cooking tool, can be quite dangerous if improperly handled. The first step to properly using a knife is making sure it is sharp because pressure applied to a dull knife increases the risk of the blade slipping and accidentally cutting a finger. The precautions for knife safety are to first correctly hold your knife; anchor the cutting board; curl fingertips back; keep your eyes on the knife; take your time when cutting; and yield to a falling knife. One method for anchoring the cutting board is to place a dampened towel under the board prior to working on top of it. A knife can be securely held by the user by wrapping the fingers of their dominant around the handle and putting their thumb in a comfortable position either on the side of the blade or wrapped around the handle, depending on the cut needed. With the nondominant hand, the user should hold the ingredient with curled fingertips to prevent accidental cuts. It is also important in this process to always be aware of where the sharpened blade is in relation to the user's fingers. If the knife ever is dropped or falls from the cutting board, it is best to avoid the knife and pick it up off the ground after it has fallen.

Never try to catch a falling knife. Additionally, when passing a knife to another person, it is best to place the knife on the cutting board with the blade facing away. The other person can then pick up the knife safely by the handle.
When cutting, there are several techniques that can achieve the size wanted. "The draw" is the approach of dragging the tip of the knife through an ingredient on the cutting board to achieve a clean slice. The result of this will yield thin slices. Another technique, chopping, involves keeping the tip of the knife down while cutting with the edge of the blade. This skill is used for mincing ingredients, such as garlic, into tiny pieces. Chopping can also be used to cut larger pieces, or dice, them into small squares. Lastly, slicing uses the edge of the blade in a downward motion. Slicing is a commonly used method for cutting a variety of ingredients and can result in several different sizes for the final product.
In addition to knife techniques, different cooking techniques are vital to making a meal. Before and during cooking, a common procedure called mise en place can be used. Mise en place is a French term that means measuring, cutting, and organizing all ingredients and placing them within arm's length on the counter before the cooking process begins. The purpose of this routine is to limit the amount of movement necessary when cooking to increase convenience and safety. Other common techniques used are boiling and sautéing. Boiling involves putting a pot of water or other liquid, such as soup, over a burner and bringing the water up to high heat. Placing a cover on the pot will make the liquid boil more quickly. Boiling can be used for cooking rice, pasta, or soup.

It is best to stir the ingredients occasionally while boiling to prevent sticking at the bottom of the pot. Unlike boiling, sautéing involves heating on a flat pan with a form of fat covering the surface. First, put the pan over the burner, then add a fat, such as olive oil, as a base. Then the ingredients you intend on cooking can be added to the heated fat. It is best to stir the ingredients occasionally so that they cook evenly on all sides.

## CONCEPTS AND VOCABULARY

Boiling: A technique used to bring liquid up to a high heat in a pot
Chopping: Keeping the tip of a knife down while cutting with the edge of the blade

Cooking techniques: The combination of steps followed, and tools used, to achieve a particular dish
Dice: Chopping an ingredient into small cube-like pieces

Knife safety: A set of precautions utilized to prevent accidents while using a knife

Mincing: Chopping an ingredient into finely cut pieces

Mise en place: A French term used to signify having all ingredients cut and equipment set out within arm's length before cooking

Sautéing: A technique used to brown an ingredient evenly using a pan and fat
Slicing: Using the edge of a knife blade in a downward motion to cut an ingredient
The draw: Dragging the tip of a knife through an ingredient to achieve a clean slice

## MATERIALS NFEDED

Flip chart paper
Writing utensils
Slice and Dice Cards (Appendix C2.1), one set per group
Knife Cuts Guide (Appendix C2.2), one per group
Common cooking equipment, including cutting boards and cutting utensils, enough for all groups
Zucchini, one per group and one for demonstration
Safety in the Kitchen (Appendix C1.1), one per group
Additional adult assistant (recommended)

TIME REQUIRED
20 to 30 minutes
SUGGESTED GROUPINGS
Small groups of 3 to 4

Materials provided in curriculum

## GETTING READY

Make copies of Slice and Dice Cards (Appendix C2.1), one set for each group. Cut the cards out along the dashed line.
$\square$ Make copies of Knife Cuts Guide (Appendix C2.2), one for each group.
Facilitator tip: It is recommended that the above appendices be laminated to allow them to be more easily handled by youth and reused.
$\square$ Organize youth into small groups of 3-4 youth.
Facilitator tip: These can be the same groups that were formed in previous lessons. By doing so, the youth may continue developing teamwork skills with the same group members.
$\square$ Provide each group with one sheet of flip chart paper and writing utensils to answer opening questions.

## OPENING QUESTIONS

Ask the youth to respond to each question/prompt below by recording their responses on the flip chart paper provided and sharing their ideas verbally.

- Explain what you know about different ways to cut food.
- Explain what you know about safe knife handling skills.


## PROCEDURE (EXPERIENCING)

1. Provide each group with Slice and Dice Cards. Explain to youth that these cards contain terms that are commonly found in recipes and picture that represent each term.
2. Ask youth to match the term with the corresponding image.
3. Provide each group with the Knife Cuts Guide and ask youth to compare the matches they made with the guide.
4. Explain to youth that they will all be preparing to cook a recipe.
5. Ask youth to gather around to watch a demonstration about knife cuts.
6. Demonstrate how to safety use a knife, as detailed in the Safety in the Kitchen Guide, by dicing a zucchini. Be sure to utilize proper food safety practices during your demonstration.
7. Ask youth to setup their cooking stations and wash their hands because they will be preparing a stir-fry recipe. Youth may find it helpful to review the Safety in the Kitchen Guide.
8. Once their stations are properly setup, provide each group with a zucchini.
9. Ask youth to take turns practicing their skills while chopping the zucchini into the size of their choosing. Supervise youth during this process to ensure that they are safety using the cutting utensils.

## SHARING, PROCESSING, AND GENERALIZING

Have the youth share their experience identifying different knife cuts. Ask youth to discuss how different knife cuts could affect different recipes and cooking time.

Follow the lines of thinking developed through the youth's thoughts, observations, and questions as they share about knife cuts. If necessary, ask more targeted questions.

- Explain some food safety techniques that you observed during the knife cuts demonstration.
- Explain how different knife cuts could affect the cooking process of a recipe.
- Explain why you think it would be important to understand different knife cuts and cooking techniques when preparing a recipe.
- Describe how you determined the best knife cut to use for this recipe.


## CONCEPT AND TERIM DISCOVERY/INTRODUCTION

Make sure that the youth understand the importance of knife safety. Youth also should be able to recognize different commonly used knife cuts, such as dicing and mincing, and how these cuts may impact a recipe's result. Additionally, make sure that key vocabulary terms are either discovered by the youth or introduced to them: boiling, chopping, cooking techniques, mise en place, sautéing, slicing, the draw.

## CULINARY APPLICATION

## MATERIALS NEEDED

Safety in the Kitchen (Appendix C1.1), one per group
Knife Cuts Guide (Appendix C2.2), one per group
Tofu Rice Bowls Shopping List (Appendix C2.3)
Facilitator Tofu Rice Bowls Recipe (Appendix C2.4)
Youth Tofu Rice Bowls Recipe (Appendix C2.5), one per group
Food grade sanitizer and rag
Freezer bags
Bowls or plates, one per youth
Forks, one per youth
Napkins, one per youth
Common cooking equipment, enough for all groups
Writing utensils
Additional adult assistant (recommended)

## Materials provided in curriculum

## GETTING READY

$\square$ Gather all ingredients for the recipe, refer to the Tofu Rice Bowls Shopping List (Appendix C2.3). Ask youth to help you harvest and wash any ingredients that will be used from the agricultural space.
$\square$ Review the recipe and facilitation steps outlined in Facilitator Tofu Rice Bowls Recipe (Appendix C2.4).
$\square$ Make copies of Youth Tofu Rice Bowls Recipe (Appendix C2.5), one for each group.
Place bulk ingredients, such as those needed for the marinade and rice, in a central location.If not already complete, ask groups to setup their cooking stations as detailed in the Safety in the Kitchen Guide (Appendix C1.1).
$\square$ Ask youth to thoroughly wash their hands before beginning the next activity.

## PROCEDURE (FXPERIFNCING)

1. Briefly review the importance of food safety, in particular proper handwashing, with youth.
2. Go through each fresh ingredient with the youth and describe how you selected each one when shopping or harvesting from the agricultural space. For example, when selecting the red bell peppers, you likely looked for peppers that were firm, bright in color, and free of any scratches.
3. Provide each group with a Youth Tofu Rice Bowls Recipe and ingredients to complete the recipe.
4. Using the Facilitator Tofu Rice Bowls Recipe and asking youth to refer to the Youth Tofu Rice Bowls Recipe, lead youth through the preparation of the recipe.
5. Ask youth to fill-in the blanks on the Youth Tofu Rice Bowls Recipe of what equipment and knife cuts they think should be utilized as they prepare the recipe.
6. Collect any leftovers in the freezer bags and promptly refrigerate them. Youth can take the leftovers home if they would like.
7. Clean kitchen areas and discard scraps, preferably through compost, and any garbage.

## SHARING, PROCESSING, AND GFNERAIIZING

Have the youth share their opinions about making the stir-fry recipe. Ask youth to discuss the knife cuts and equipment they used to make the recipe. Follow the lines of thinking developed through the youth's thoughts, observations, and questions as they share what they discovered about preparing the recipe.

## HONE CONCEPT APPLICATION

## MATERIALS NEEDED

Youth Tofu Rice Bowls Recipe (Appendix C2.5), one per youth
Knife Cuts Table and Recipes (Appendix C2.6), one per youth

Materials provided in curriculum

## GEITING READY

$\square$ Makes copies of the Youth Tofu Rice Bowls Recipe (Appendix C2.5), one for each youth.
$\square$ Make double-sided copies of Knife Cuts Table and Recipes (Appendix C2.6), one for each youth.
Facilitator tip: It is recommended to laminate Knife Cuts Table and Recipes to improve its longevity.

## PROCEDURE (FXPERIENCING)

1. Provide each youth with a Youth Tofu Rice Bowls Recipe and Knife Cuts Table and Recipes.
2. Encourage youth to prepare the recipe as is at home with their families. Encourage youth to also adapt the recipe to include ingredients that may better match their family's tastes and
preferences. The Knife Cuts Table and Recipes can help ensure that they are cutting ingredients into appropriate sizes and also provides some other recipes to try.

## SHARING, PROCESSING, AND GFNERAIIZING

Have the youth share their experience preparing the recipe at home and whether they made any modifications. Follow the lines of thinking developed through the youth's thoughts, observations, and questions as they share how they prepared the recipe at home.





Recipes usually call for the ingredients to be cut in a certain way. Below are general references for some common knife cuts and techniques. Use this guide to help you approximate the cut in the recipe. It is okay if your cuts do not match these perfectly.



The Draw
Place the tip of the knife blade on the cutting board and then drag the blade through the food to create slices


The Slice
Use a clawed hand to hold the food while you gently bring the knife blade down to cut the food


The Chop
Put your opposite hand on the top of the knife blade to apply more pressure when cutting the food

## Tofu Rice Bowls Harvesting/Shopping List

## Yields: About 16 servings (amount needed for 4 groups of 3-4 youth)

$\square$
28 oz tofu, firm or extra firm
$\square 4$ red bell peppers
$\square 4$ zucchini
$\square$ About $1 / 2$ cup oil (such as olive oil)
$\square 1$ cup soy sauce
$\square 1 / 2$ cup ketchup
$\square 1 / 4$ cup honey
$\square 4$ teaspoons sesame oil
$\square 4$ teaspoons apple cider vinegar
$\square 1$ teaspoon red pepper flakes
$\square 1$ teaspoon ground ginger
$\square 7$ cups dry quick-cooking brown rice
$\square 5$ cups water
$\square 1 / 2$ cup basil
$\square 1 / 2$ cup cilantro
$\square 1$ bunch green onion
$\square 2$ teaspoons salt
$\square 1$ teaspoon black pepper
$\square$ Roll of paper towels
$\square$ Disposable (preferably compostable) bowls or plates
$\square$ Disposable (preferably compostable) forks

Note: Additional or alternative vegetables can be used in this recipe. Some great options are broccoli and carrots. It is recommended to use fresh or frozen vegetables for best results. Feel free to add other vegetables that are ready to harvest from your agricultural space.

## Tofu Rice Bowls

Time: 45 minutes
Yields: 4 servings

Ingredients (per group)

7 oz. tofu, firm or extra firm 1 red bell pepper
1 zucchini
2 tablespoons oil (such as olive oil), divided
2 tablespoons green onion

| Marinade: | Rice: |
| :--- | :--- |
| $1 / 4$ cup soy sauce | $13 / 4$ cups dry quick-cooking |
| 2 tablespoon ketchup | brown rice |
| 1 tablespoon honey | $11 / 2$ cup water |
| 1 teaspoon sesame oil | 2 tablespoons basil |
| 1 teaspoon apple cider vinegar | 2 tablespoons cilantro |
| $1 / 4$ teaspoon red pepper flakes | $1 / 2$ teaspoon salt |
| $1 / 4$ teaspoon ground ginger | $1 / 4$ teaspoon black pepper |
|  | 1 teaspoon oil |

## Directions

1. Drain the tofu liquid
2. Cut the tofu in half horizontally and wrap the pieces in 4 paper towels
3. Place the wrapped tofu on a cutting board
4. Put a frying pan on top of the wrapped tofu and set it aside
5. Whisk together marinade ingredients in a medium-sized bowl
6. Unwrap the tofu, discarding the wet paper towels, and cut into medium dice-sized pieces
7. Add diced tofu to the marinade mixture and carefully stir it so that the tofu does not break apart and is evenly coated with marinade; set aside
8. To start the rice, add water to a medium saucepan, cover with a lid, and bring it to a boil
9. Add the rice and stir until it is evenly distributed and bring back to a boil
10. Put a cover on the sauce pan and turn off the heat; set aside
11. Medium dice the zucchini and red bell pepper and finely chop the basil, cilantro, and green onion; place the chopped ingredients in bowls and set aside
12. In a large frying pan, heat 1 tablespoon oil over medium-high heat and add the marinated tofu
13. Cook the tofu until it starts to get crispy, flipping pieces with tongs occasionally
14. Once cooked, pour the tofu into a bowl and set it aside
15. Add 1 tablespoon oil to the heated frying pan
16. Add chopped zucchini and red bell pepper to the frying pan. Season with salt and pepper and cook until just tender; turn off the heat once vegetables are finished cooking
17. In a large bowl, mix together the cooked rice, 1 teaspoon oil, chopped herbs, cooked tofu, cooked vegetables, and salt and pepper
18. Top with the green onion and serve

## Tofu Rice Bowls

Time: 45 minutes
Yields: 4 servings

Ingredients
7 oz. tofu, firm or extra firm

1 red bell pepper
1 zucchini
2 tablespoons oil (such as olive oil), divided
2 tablespoons green onion

| Marinade: | Rice: |
| :--- | :--- |
| $1 / 4$ cup soy sauce | $13 / 4$ cups dry quick-cooking |
| 2 tablespoon ketchup | brown rice |
| 1 tablespoon honey | $11 / 2$ cup water |
| 1 teaspoon sesame oil | 2 tablespoons basil |
| 1 teaspoon apple cider vinegar | 2 tablespoons cilantro |
| $1 / 4$ teaspoon red pepper flakes | $1 / 2$ teaspoon salt |
| $1 / 4$ teaspoon ground ginger | $1 / 4$ teaspoon black pepper |
|  | 1 teaspoon oil |

## Directions

1. Drain the tofu liquid
2. Cut the tofu in half horizontally and wrap the pieces in 4 paper towels
3. Place the wrapped tofu on a cutting board
4. Put a frying pan on top of the wrapped tofu and set it aside
5. $\qquad$ together marinade ingredients in a medium-sized bowl
6. Unwrap the tofu, discarding the wet paper towels, and cut into medium dice-sized pieces
7. Add diced tofu to the marinade mixture and carefully stir it so that the tofu does not break apart and is evenly coated with marinade; set aside
8. To start the rice, add water to a medium $\qquad$ , cover with a lid, and bring it to a boil
9. Add the rice and stir until it is evenly distributed and bring back to a boil
10. Put a cover on the sauce pan and turn off the heat; set aside
11. $\qquad$ the zucchini and red bell pepper and finely chop the basil, cilantro, and green onion; place the chopped ingredients in bowls and set aside
12. In a large $\qquad$ heat 1 tablespoon oil over medium-high heat and add the marinated tofu
13. Cook the tofu until it starts to get crispy, flipping pieces with $\qquad$ occasionally
14. Once cooked, pour the tofu into a bowl and set it aside
15. Add 1 tablespoon oil to the heated frying pan
16. Add chopped zucchini and red bell pepper to the frying pan. Season with salt and pepper and cook until just tender; turn off the heat once vegetables are finished cooking
17. In a large bowl, mix together the cooked rice, 1 teaspoon oil, chopped herbs, cooked tofu, cooked vegetables, and salt and pepper
18. Top with the green onion and serve

Recipes usually call for the ingredients to be cut in a certain way. Below are general references for some common knife cuts. Use this guide to help you approximate the cut in the recipe. It is okay if your cuts do not match these perfectly.

| Thin slice or fine Julienne $1 / 16 \times 1 / 16 \times 1-2$ inches |  | Julienne or matchstick $1 / 8 \times 1 / 8 \times 1-2$ inches |  | Slice <br> $1 / 4 \times 1 / 4 \times 2-21 / 2$ inches |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mince <br> $1 / 16 \times 1 / 16^{1 / 1 / 16}$ inches | Fine dice/chop $1 / 8 x^{1 / 8} \times 1 / 8$ inches | Small dice/chop $1 / 4 \times 1 / 4 \times 1 / 4$ inches | Medium dice/chop $1 / 3 \times 1 / 3 \times 1 / 3$ inches | Dice/chop <br> $1 / 2 \times 1 / 2 \times 1 / 2$ inches | Large dice/chop $3 / 4 \times 3 / 4 \times 3 / 4$ inches |

## SAVE YOUR VEGETABLE SCRAPS!

Vegetable scraps should not be thrown away. Instead, save them in a bag in your freezer. Once you have a good amount, make the following vegetable broth. The vegetable broth can then be used in a variety of recipes and/or kept in the freezer.
Some common vegetable scraps include: peels, skins, stems, ends, leaves

## Vegetable Broth Recipe*

## Ingredients

1 tablespoon oil
5 gloves garlic, minced
2 large onions, medium chopped
3 ribs celery, large chopped
3 carrots, large chopped
8 cups water
2-3 cups frozen vegetable scraps
2 bay leaves
$11 / 2$ teaspoon dried parsley
1 teaspoon dried thyme
Salt and pepper to taste

Time: 60 minutes Yield: about 6 cups of broth

## Directions

1. Heat the oil in a large pot over medium heat.
2. Add the garlic, onions, celery, and carrots. Cook until softened, about 5 minutes, stirring often.
3. Add the water, frozen vegetable scraps, bay leaves, parsley, and thyme. Reduce heat to low and simmer, partially covered, for 45 minutes.
4. Pour the broth through a strainer into a large heat-proof bowl or pot to cool; compost solids.
5. Once the broth has cooled, transfer it to airtight containers or freezer bags and store it in the freezer. It is recommended to freeze it in 2-cup portions so that you do not have to thaw all the broth every time.

## BACKGROUND INFORIMATION

Often eating healthy and living on a budget can be viewed as two different lifestyles, but with the right information and practices, these two concepts can be achieved together. One method to help with this is to evaluate your food budget and plan according to financial needs. When making a budget, it is important to account for the income being earned and the amount that must be allocated toward bills and other required monthly costs.
Once the necessary money has been set aside for monthly expenses, additional funds can be allotted for groceries for the month. A great way to minimize the cost of the grocery list is by utilizing store weekly ads and sales given for signing up for free store memberships. By signing up for a membership, or cutting coupons out of the weekly ad, one can save money that otherwise would have been spent toward a whole price item. Meal planning is a strategy used to get the most worth out of the food bought. By planning out what meals that are going to be eaten that week, buying ingredients with a purpose will keep the structure for how the money is spent. By meal planning, leftover dinners can be also turned into lunches for the following day instead of purchasing lunch, which shows how strategizing meals saves money.
Not only are there strategies for how to plan meals helpful for budgeting, but where one chooses to buy the products is a great way to save money as well.

Usually, the most amount of food for the cheapest price can be found in bulk food stores, which are the best way for economic grocery shopping. When buying in bulk, items are found in larger quantity and the price of a single unit is less compared to buying the commercially packaged item. This is effective when the items are used frequently and will even save additional trips to the store. For example, you could buy the larger portioned meat and freeze what you do not use, or purchase a larger sized yogurt that is not individually packaged. In addition, stores that sell their products in bins where the consumer portions it themselves and pays based on weight are also economically efficient. For example, portioning a specific amount of oats into a provided plastic bag, or a bag from home, that is going to be used for the week and paying a price that does not include packaging is a great money saver.

There are so many options to buy fruits and vegetables. Conventional produce includes fruits and vegetables treated with pesticides, whether in the United States or imported from other countries, that have been regulated by governmental agencies. In contrast to conventional produce, organic produce, which is also regulated by the government, are grown under strict rules for land and pesticide use. While conventional and organic produce are grown under different conditions, they are virtually the same in terms of nutrition. Organic produce is usually much more expensive compared to conventional produce, however both can be more affordable throughout the year when in season. Seasonal produce are fruits and vegetables that are naturally
harvested in a given season, which has a high supply at that time, causing the price to go down for the consumer. Whether the product is conventional or organic, seasonal produce is frequently the cheapest option for fresh produce. Other than fresh produce, frozen produce is also an affordable, nutritious, and accessible option. The produce is typically picked and frozen at the peak of ripeness, making the quality similar to that of fresh produce and providing another great option when economically buying produce.

## CONCEPTS AND VOCABULARY

Budget: An allocation of funds calculated from the amount of income after deducting expenses for a period of time

Buying in bulk: Purchasing a product in a larger quantity so that the price of a single unit is less compared to buying the individually packaged item

Conventional produce: Commercially produced fruits and vegetables that are treated with pesticides

Economical grocery shopping: A collection of methods for purchasing items at the grocery store while saving money

Meal planning: Strategizing and planning meals for a given time using ingredients that can be used for multiple meals

Organic produce: Fruits and vegetables that are grown following strict governmental guidelines

Seasonal produce: Fruits and vegetables that are harvested during their peak of ripeness

## MATERIALS NFEDED

Flip chart paper
Writing utensils
Organizing the Grocery Store (Appendix C3.1)
Grocery Store Food Cards (Appendix C3.2)
Shopping Trip Summary (Appendix C3.3), one per group
Clipboard, one per group
$\square$ Calculator, one per group

## TIME REQUIRED

30 to 45 minutes

## SUGGESTED GROUPINGS

Small groups of 3 to 4

Materials provided in curriculum

## GETIING READY

Make one copy of the Grocery Store Food Cards (Appendix C3.2), cut cards out along the dashed line.

Facilitator tip: It is recommended that the Grocery Store Food Cards be laminated to allow them to be more easily handled by youth and reused.
$\square$ Make double-sided copies of the Shopping Trip Summary (Appendix C3.3), one for each group.
$\square$ Setup a grocery store by organizing the Grocery Store Food Cards into store sections. Place each section of cards in different parts of the room, laying them out so that the names of the foods are visible. A suggested grouping of the cards is provided in Organizing the Grocery Store (Appendix C3.1).
$\square$ Organize youth into small groups of $3-4$ youth.
Facilitator tip: These can be the same groups that were formed in previous lessons. By doing so, the youth may continue developing teamwork skills with the same group members.
$\square$ Provide each group with one sheet of flip chart paper and writing utensils to answer the opening questions.

## OPENING QUESTIONS

Ask the youth to respond to each question/prompt below by recording their responses on the flip chart paper provided and sharing their ideas verbally.

- Explain what you think should be considered when shopping for food at the grocery store.
- Explain what factors you think influence the price of foods.


## PROCEDURE (EXPERIENCING)

1. Provide each group with a Shopping Trip Summary, clipboard, and calculator.
2. Orient youth to the room setup, pointing out that the room has been transformed into a grocery store during the wintertime.
3. Explain to the youth that they each have been given $\$ 100$ to shop for meals to feed four people for a week.
4. Ask youth to begin the shopping activity. They should just refer to the Grocery Store Food Cards and should not remove cards from the grocery store setup.
5. Ask youth to record the items they decide to buy and complete the other components of the Shopping Trip Summary as they shop.

## SHARING, PROCESSING, AND GENERAIIZING

Have the youth share their Shopping Trip Summary and discuss what they decided to purchase. Ask youth to describe their methods for staying within the given budget.
Follow the lines of thinking developed through the youth's thoughts, observations, and questions as they share about shopping on a budget. If necessary, ask more targeted questions.

- Explain how the food you chose to purchase was affected by the given budget.
- Discuss whether there is something you would change about your group's grocery shopping trip.
- Explain what you could do differently to stay within the budget.
- Explain what you noticed about the prices of different foods.


## CONCEPT AND TERIM DISCOVERY/INTRODUCTION

Make sure that youth understand the importance of grocery shopping on a budget and that an individual's budget may limit which foods they are able to purchase. Youth should also understand that season and whether the produce is conventional or organic influences the prices of fresh fruits and vegetables. Although nutritionally similar, seasonal and conventional produce are the most affordable. Additionally, make sure that key vocabulary terms are either discovered by the youth or introduced to them: buying in bulk, economical grocery shopping, and meal planning.

## CULINARY APPLICATION

## MATERIALS NFEDED

Safety in the Kitchen Guide (Appendix C1.1), one per group

Green Salad Shopping List (Appendix C3.4)
Green Salad Price Cards (Appendix C3.5), one card per ingredient
Group Salad Plan (Appendix 3.6), one per group
Green Salad Dressing Recipes (Appendix 3.7), one per group
Dry-erase marker
Food grade sanitizer and rag
Freezer bags
Bowls or plates, one per youth
Forks, one per youth
Napkins, one per youth
Common cooking equipment, enough for all groups
Additional adult assistant (recommended)

## TIME REQUIRED

15 to 20 minutes

## SUGGESTED GROUPINGS

Small groups of 3 to 4

Materials provided in curriculum

## GEITING READY

$\square$ Gather all ingredients for the recipe, refer to Green Salad Shopping List (Appendix C3.4). Ask youth to help you harvest and wash any ingredients that will be used from the agricultural space.
$\square$ Make note of any ingredient that is in season. You can find what is in season in your area by visiting https://www.seasonalfoodguide.org/.
$\square$ Make enough copies of the Green Salad Price Cards (Appendix C3.5) so that you have one for each ingredient. Cut cards out along the dashed line.
Facilitator tip: It is recommended that the Green Salad Price Cards be laminated to allow them to be reused.
$\square$ Place ingredients in a central location and label each one with the Green Salad Price Cards (Appendix C3.5). Base and add-in items should be labeled with either the "grocery store" or "garden" cards and salad dressing ingredients should be labeled with the "already had" cards.
$\square$ Use the dry-erase marker to write in the price you paid for each ingredient from the grocery store.
$\square$ Make copies of the Group Salad Plan (Appendix C3.6), one for each group.
$\square$ Make copies of the Green Salad Dressing Recipes (Appendix C3.7), one for each group. Facilitator tip: It is recommended that the Green Salad Dressing Recipes be laminated to allow them to be reused.
$\square$ If not already complete, ask groups to setup their cooking stations as detailed in the Safety in the Kitchen Guide (Appendix C1.1).
$\square$ Ask youth to thoroughly wash their hands before beginning the next activity.

## PROCEDURE (EXPERIENCING)

1. Briefly review the importance of food safety, in particular proper handwashing, with youth.
2. Go through each fresh ingredient with the youth and describe how you selected each one when shopping or harvesting from the agricultural space. For example, when selecting the salad greens, you likely looked for greens that were not wilted or soggy and bright in color. Also mention whether any of the ingredients are in season.
3. Explain to the youth that they will be making a green salad for their groups for under $\$ 15$.
4. Provide each group with a Group Salad Plan and Green Salad Dressing Recipes.
5. Explain to the youth that each available ingredient is from either their agricultural space, the grocery store, or something that was already on hand and has been labeled with its price. As a group, they will decide which items they would like to buy to make their salad and salad dressing. Youth can use the Green Salad Dressing Recipes to help in picking a salad dressing to make.
6. Ask youth to "shop" for their ingredients from those available and to record the ingredients and their cost on the Group Salad Plan.
7. Ask youth to work together within their groups to prepare their green salad. Assist youth in the preparation as needed.
8. Collect any leftovers in the freezer bags and promptly refrigerate them. Youth can take the leftovers home if they would like.
9. Clean kitchen areas and discard scraps, preferably through compost, and any garbage.

## SHARING, PROCESSING, AND GENERALIZING

Have the youth share their Group Salad Plan and discuss the ingredients they decided to include in their salad. Youth should also discuss whether they created the salad within the given budget and any challenges they had. Follow the lines of thinking developed through the youth's thoughts, observations, and questions as they share their experience preparing their group salad.

## HOIME CONCEPT APPLICATION

## IMATERIALS NEFDED

Home Meal Planner (Appendix C3.7), one per youth

## TIME REQUIRED

5 to 10 minutes

Materials provided in curriculum

## GETIING READY

$\square$ Makes copies of Home Meal Planner (Appendix C3.7), one for each youth.
$\square$ If youth have limited access to the internet, provide a list of what is in season in the area. You can find what is in season by visiting https://www.seasonalfoodguide.org/.

## PROCEDURE (EXPERIENCING)

1. Provide each youth with the Home Meal Planner.
2. Ask youth to plan meals for one week and record the cost per meal, day, and week.
3. Encourage youth to eat seasonally to save the most money. They can find what is in season in their area by visiting https://www.seasonalfoodguide.org/. Remind youth that the produce that tends to be the most affordable at the grocery store is typically what is in season.
4. Encourage youth to make a green salad for one of their meals, as they did for the culinary activity, and adapt it to include ingredients that are in season or ones that better match their family's tastes and preferences.

## SHARING, PROCESSING, AND GFNERAIIZING

Have the youth share the meals they prepared at home and discuss how they incorporated seasonal produce. Follow the lines of thinking developed through the youth's thoughts, observations, and questions as they share what they learned about meal planning and shopping seasonally.

Below is a suggestion of how to group the Grocery Store Food Cards to mimic a real grocery store.

| Produce |  |  |
| :--- | :--- | :--- |
| Apples | Broccoli (organic) | Celery |
| Apples (organic) | Broccoli | Carrots |
| Oranges | Green Beans | Carrots (organic) |
| Bananas | Avocado | Spinach |
| Strawberries | Tomato | Romaine Lettuce |
| Clementines | Zucchini | Red Skin Potatoes |
| Watermelon | Cucumber | Sweet Potato |
| Bell Pepper |  |  |


| Meat |  |  |
| :--- | :--- | :--- |
| Ground Beef | Steak | Salmon |
| Ground Beef (grass-fed) | Chicken Breast | Bacon |


| Refrigerated |  |  |
| :--- | :--- | :--- |
| Almond Milk | Deli Sandwich | Eggs |
| Chocolate Milk | American Cheese | Eggs (organic) |
| Reduced Fat (2\%) Milk | Cheddar Cheese | Lunchmeat (Ham) |
| Orange Juice | Low-fat Yogurt | Lunchmeat (Turkey) |
| Monterey Jack Cheese | Tofu |  |


| Canned and Packaged |  |  |
| :--- | :--- | :--- |
| Whole Corn Kernels | Sweet Cereal | Wheat Cereal |
| Black Beans | Almonds | Oatmeal |
| Kidney Beans | Walnuts | Blueberry Muffin |
| Peanut Butter | Mayonnaise | English Muffins |
| Strawberry Jam | Soda | Flour Tortillas |
| Potato Chips | Ketchup | Corn Tortilla |
| Pretzels | Italian Salad Dressing | White Rice |
| Crackers | Ranch Dressing | Brown Rice |
| Cookies | Soup (canned) | White Bread |
| Granola Bards | Pita Bread | Whole Wheat Bread |


| Freezer |  |  |
| :--- | :--- | :--- |
| Veggie Burgers (frozen) | Ice cream | Pepperoni Pizza (frozen) |
| Chicken Nuggets (frozen) | Mixed Vegetables (frozen) | Pasta Entrée (frozen) |
| Burrito (frozen) | Mixed Fruit (frozen) |  |











## Budget for the Week: \$100 for 4 people

| Meal | Item | Price | Quantity | Number of <br> Servings | Total Price <br> (Quantity $\times$ Price $)$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Snack | Apples | $\$ 0.99$ | 216. | 6 | $2 \times \$ 0.99=\$ 1.98$ |
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| Meal | Item | Price | Quantity | Number of <br> Servings | Total Price <br> (Quantity x Price) |
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## Green Salad Harvesting/Shopping List

Yields: 16 servings (amount needed for 4 groups of 4 youth)

Provide the following base ingredients and choose 3-4 of the suggested add-ins for youth to customize their salads. Try to purchase add-ins that are in season. If applicable, encourage youth to incorporate vegetables harvested from their garden.

Base Ingredients:

- 16 cups assorted greens (spinach, spring mix, arugula, romaine, etc.)
- Optional: assorted herbs (parsley, cilantro, etc.)

Suggested Add-ins:

- 4 bell peppers
- 2 red onions
- 4 green onions
- 2 avocados
- 8 celery stalks
- 8 carrots
- 4 cups cherry tomatoes
- 26 -oz cans of pitted olives
- 2 cups cheese (feta or cojita)
- 4 cups broccoli
- 2 15-oz cans of beans (chickpeas, kidney beans)
- 4 oz dried fruit (dried cranberries, raisins)

Dressing Ingredients:

- $41 / 2$ cups olive oil
- $1 / 2$ cup fresh lemon juice or apple cider vinegar
- $1 / 2$ cup balsamic vinegar
- $1 / 2$ cup rice vinegar
- 4 teaspoons garlic powder
- 6 teaspoons honey
- 3 teaspoons salt
- 3 teaspoons pepper
- 2 teaspoons dried basil
- 6 teaspoons Dijon mustard
- 1 teaspoon red pepper flakes




Group Budget: \$15

| Ingredient/Item | Price |
| :--- | :--- |
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## Green Salad Dressing Recipes

Directions: Once you have your salad base ready, make one of the following dressings for it. Each recipe will make enough dressing for your group to share.

1. Lemon Herb Vinaigrette Dressing

- 2 tablespoons fresh lemon juice or apple cider vinegar
- 6 tablespoons olive oil
- $1 / 2$ teaspoon garlic powder
- $1 / 4$ teaspoon salt
- $1 / 4$ teaspoon pepper
- $1 / 2$ teaspoon honey
- $1 / 4$ teaspoon dried basil

2. Balsamic Vinaigrette Dressing

- 2 tablespoons balsamic vinegar
- 6 tablespoons olive oil
- $1 / 2$ teaspoon honey
- $1 / 2$ teaspoon Dijon mustard
- $1 / 4$ teaspoon dried basil
- $1 / 4$ teaspoon salt
- $1 / 4$ teaspoon pepper
- $1 / 4$ teaspoon red pepper flakes (optional)

3. Sesame Asian Dressing

- 2 tablespoons rice vinegar
- 6 tablespoons olive oil
- 1 teaspoon Dijon mustard
- $1 / 2$ teaspoon honey
- $1 / 2$ teaspoon garlic powder
- $1 / 4$ teaspoons salt
- $1 / 4$ teaspoon pepper

4. Make Your Own!

- 2 tablespoons vinegar (any kind you want)
- 6 tablespoons olive oil
- Anything else you want. It may help to reference the above recipes for ideas.

Directions: Use this meal planner to plan out your meals for the week. Be sure to include the ingredients needed for each meal and the estimated cost for each meal. Next, total up the cost per day and the cost per week of your meal plan. You will save the most money if you eat produce that is in season. Go to https://www.seasonalfoodguide.org/ to search for what is in season right now in your area.

|  | Monday | Tuesday | Wednesday | Thursday | Friday |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ingredients: | Ingredients: | Ingredients: | Ingredients: | Ingredients: |
| Meal 1 |  |  |  |  |  |
| Meal cost: | \$ | \$ | \$ | \$ | \$ |
|  | Ingredients: | Ingredients: | Ingredients: | Ingredients: | Ingredients: |
| Meal 2 |  |  |  |  |  |
| Meal cost: | \$ | \$ | \$ | \$ | \$ |
|  | Ingredients: | Ingredients: | Ingredients: | Ingredients: | Ingredients: |
| Meal 3 |  |  |  |  |  |
| Meal cost: | \$ | \$ | \$ | \$ | \$ |
|  | Ingredients: | Ingredients: | Ingredients: | Ingredients: | Ingredients: |
| Other |  |  |  |  |  |
| Meal cost: | \$ | \$ | \$ | \$ | \$ |
| Cost per day: | \$ | \$ | \$ | \$ | \$ |
|  |  |  |  | Cost per week: | \$ |

## BACKGROUND INFORIMATION

Nutrition Facts Labels are the labels on the back or side of food packaging that contains information relating to serving size, nutrients, and calories. Using this information can help explicitly determine the number of macronutrients and micronutrients being purchased. In addition, the serving size and 'number of servings per container' line are included toward the top of the label. The purpose of the serving size is specifically for numerical accuracy. This line indicates the amount, commonly in measurements such as cups, or tablespoons, of that food that contains the nutrients listed on the label. When thinking about serving size, a large misconception is that the serving size is the suggested amount of portion recommended to consume for a standard 2,000 calorie diet. But in reality, the "recommended" portion of food depends on several individual factors and overall eating pattern. Portion size is the amount of food chosen to be consumed by an individual. This means that the serving size on the package can be used for numerical reference while portioning out an amount of food used in a meal. The servings per container on the package can thus be used for reference when portioning out the entire package of food and determining how many containers should be purchased for the desired time. This concept works when recipe scaling as well. Recipe scaling is when someone alters the amount of each ingredient in a recipe to yield a different amount than originally indicated. For
example, if someone wants to double a recipe, they can multiply all of the ingredients by two.

## CONCEPTS AND VOCABULARY

Nutrition Facts Label: The label on the side of packaged foods that lists the number of calories and selected nutrients found within a given serving size of that food

Servings size: A measured amount of food or drink that is included on Nutrition Facts Labels to help when calculating the amount of a nutrient in a food item

Portion size: The amount of food served in one sitting

Recipe scaling: Adjusting the number of ingredients in a recipe in order to adjust the yield

## MATERIALS NEEDED

## Flip chart paper

Writing utensils
Burrito Bowl Price Cards (Appendix C4.1)
Green Salad Price Cards (Appendix C3.4), as needed
Serving vs. Portion Worksheet (Appendix C4.2), one per youth
Calculator, one per group
Clipboard, one per group

## TIME REQUIRED

15 to 20 minutes

## SUGGESTED GROUPINGS

Small groups of 3 to 4

## Materials provided in curriculum

## GEITING READY

$\square$ Make a copy of Burrito Bowl Price Cards (Appendix C4.1), cut them out along the dashed line.
$\square$ Use the Green Salad Price Cards (Appendix C3.4) to supplement the Burrito Bowl Price Cards if needed.
Facilitator tip: These can be the same groups that were formed in previous lessons. By doing so, the youth may continue developing teamwork skills with the same group members.
$\square$ Place the price cards spread out in a central location.
$\square$ Make copies of Serving vs. Portion Worksheet (Appendix C4.2), one for each youth.
$\square$ Organize youth into small groups of 3-4 youth.
Facilitator tip: These can be the same groups that were formed in previous lessons. By doing so, the youth may continue developing teamwork skills with the same group members.
$\square$ Provide each group with writing utensils or markers, and one sheet of flip chart paper to answer the opening questions.

## OPENING QUESTIONS

Ask the youth to respond to each question/prompt below by recording their responses on the flip chart paper provided and sharing their ideas verbally.

- Explain what you think people consider when determining how much to eat for one meal.
- Explain what you know about the difference between serving sizes and portion sizes.


## PROCEDURE (EXPERIENCING)

1. Provide each group with a Serving vs. Portion Worksheet, a clipboard, and calculator.
2. Explain to youth that they will be making a burrito bowl and orient youth to where the price cards have been placed.
3. Explain to youth that before portioning out their own burrito bowls, they will work with their
group members to figure out how much a serving for one would cost. Explain to youth that serving sizes can be found on the Burrito Bowl Price Cards and that these values are used for calculations. Servings sizes are not recommendations of how much of the food someone should eat.
4. Ask youth to reference the Burrito Bowl Price Cards to complete the first five columns of the Serving vs. Portion Worksheet and to figure out the cost of a burrito bowl per serving.
5. Once the first five columns of the Serving vs. Portion Worksheet are complete, ask youth to save the worksheet for the next activity.

## SHARING, PROCESSING, AND GENERALIZING

Have the youth share their process for figuring out the cost per serving of the burrito bowls and discuss whether they think the cost per portion will differ in cost.

Follow the lines of thinking developed through the youth's thoughts, observations, and questions as they share. If necessary, ask more targeted questions/prompts:

- Describe your experience in figuring out the cost per serving.
- Explain what you think about the cost per serving that you calculated.
- Describe any differences you expect to have from the serving sizes when portioning out your own burrito bowl.
- Explain how you think the cost per portion will compare to the cost per serving.


## CONCEPT AND TERIM DISCOVERY/INTRODUCTION

Make sure that the youth understand the difference between servings size and portion size. Youth should also understand that servings sizes are used exclusively for calculations and are not recommendations for how much food someone should consume. Additionally, make sure that key vocabulary terms are either discovered by the youth or introduced to them: Nutrition Facts Label and recipe scaling.

## CULINARY APPLICATION

## MATERIALS NEFDED

Safety in the Kitchen Guide (Appendix C1.1), one per group
Burrito Bowl Shopping List (Appendix C4.3)
Burrito Bowl Recipe (Appendix C4.4), one per group
Burrito Bowl Price Cards (Appendix C4.1)
Green Salad Price Cards (Appendix C3.4), as needed
Serving vs. Portion Worksheet (Appendix C4.2), one per youth
Calculator, one per group
Clipboard, one per group
Food grade sanitizer and rag
Freezer bags
Bowls, one per youth
Forks, one per youth
Napkins, one per youth
Common cooking equipment, enough for all groups
Additional adult assistant (recommended)

Materials provided in curriculum

## GETTING READY

$\square$ Gather all ingredients for the recipe, refer to Burrito Bowl Shopping List (Appendix C4.3). Ask youth to help you harvest and wash any ingredients that will be used from the agricultural space.
$\square$ Make copies of the Burrito Bowl Recipe (Appendix C4.4), one for each group.Place ingredients in a central location and label each one with the Burrito Bowl Price Cards and, if using, the Green Salad Price Cards from the last activity.
$\square$ If not already complete, ask groups to setup their cooking stations as detailed in the Safety in the Kitchen Guide (Appendix C1.1).
$\square$ Ask youth to thoroughly wash their hands before beginning the next activity.

## PROCEDURE (FXPFRIFNCING)

1. Briefly review the importance of food safety, in particular proper handwashing, with youth.
2. Go through each fresh ingredient with the youth and describe how you selected each one when shopping or harvesting from the agricultural space. For example, when selecting the tomatoes, you likely looked for tomatoes that were slightly firm, bright in color, and free of any bruises.
3. Ask youth to have their partially completed Serving vs. Portion Worksheet from the last activity in front of them.
4. Orient youth to where the ingredients have been placed and provide each group with the Burrito Bowl Recipe.
5. Ask youth to follow the directions on the Burrito Bowl Recipe to prepare their ingredients as a group.
6. Once everything is prepared, ask youth to assemble their own burrito bowls by measuring their desired amount of each ingredient using measuring cups or spoons and recording their portion sizes on the Serving vs. Portion Worksheet.
7. Ask youth to calculate the cost per portion of their burrito bowl by completing the remainder of the Serving vs. Portion Worksheet.
8. Collect any leftovers in the freezer bags and promptly refrigerate them. Youth can take the leftovers home if they would like.
9. Clean kitchen areas and discard scraps, preferably through compost, and any garbage.

## SHARING, PROCESSING, AND GENERALIZING

Have the youth share their process for figuring out the cost per portion of the burrito bowls and discuss the cost per portion that they calculated. Follow the lines of thinking developed through the youth's thoughts, observations, and questions as they share their experience preparing their burrito bowls.

## HONE CONCEPT APPLICATION

## MATERIALS NFEDED

Burrito Bowl Recipe (Appendix C4.4), one per youth

## TIME REQUIRED

5 to 10 minutes

Materials provided in curriculum, one per youth

## GETIING READY

Make copies of Burrito Bowl Recipe (Appendix C4.4), one for each youth.

## PROCEDURE (EXPERIENCING)

1. Provide each youth with the Burrito Bowl Recipe.
2. Encourage youth to scale and make the Burrito Bowl Recipe at home with their family members, adapting it to include ingredients that are in season or ones that better match their family's tastes and preferences.

## SHARING, PROCESSING, AND GFNERAIIZING

Have the youth share the meal they prepared at home and discuss whether they made any adaptions to the recipe. Follow the lines of thinking developed through the youth's thoughts, observations, and questions as they share their experience scaling and preparing the burrito bowl recipe at home.



| Ingredient | Item Cost | Serving Size (found on package) | Servings per Container (found on package) | Cost per Serving (Item Cost $\div$ Servings per Container) | Portion | Servings per Portion <br> (Portion $\div$ Serving Size) | Cost per Portion (Cost per Serving x Servings per Portion) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Example: <br> Pinto <br> Beans | \$0.99 | $1 / 2$ cup | 3.5 | $\begin{gathered} \$ 0.99 \div 3.5= \\ \$ 0.28 \end{gathered}$ | 3/4 cup | $3 / 4 \div 1 / 2=1.5$ <br> or $0.75 \div 0.50=1.5$ | $\begin{gathered} \$ 0.28 \times 1.5= \\ \$ 0.42 \end{gathered}$ |
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|  |  |  | Cost per Serving: |  |  | Total Cost per Portion: |  |

## Burrito Bowls Harvesting/Shopping List

## Yields: About 16 servings (amount needed for 4 groups)

$\square$ 6-15 oz cans black beans
$\square 6$ cups dry quick-cooking brown rice
$\square 6$ cups water
$\square 8$ cups corn, canned (5-15.25 oz cans) or frozen (4-16 oz bags)
$\square 4$ large tomatoes tomato
$\square 2$ bunches green onion
$\square 4$ avocadoes
$\square 2$ heads of lettuce (romaine or butter lettuce recommended)
$\square 4$ limes
$\square 1$ bunch cilantro
$\square 4$ cups sharp cheddar cheese (optional)
$\square 4$ cans diced tomatoes and green chilies
$\square 1$ bag tortilla chips
$\square 16$ cloves garlic (1 large head)
$\square \quad$ About 3 tablespoons salt
$\square 4$ teaspoons black pepper
$\square 1$ cup oil (such as olive oil)

## Burrito Bowl Recipe

| redients |  |
| :---: | :---: |
|  | black beans, canned |
|  | water |
|  | corn, canned or frozen |
|  | tomatoes and green chilies, canned |
|  | green onion, thinly sliced |
|  | lettuce |
|  | avocado, medium diced |
|  | tortilla chips |
|  | lime juice |
|  | cilantro, thinly sliced |
|  | cheese (optional), shredded |
|  | garlic, minced |
|  | salt |
|  | black pepper |
|  | oil (such as olive oil) |

## Directions

1. To start the rice, add water (equal amount as planned for the rice) to a medium saucepan and bring it to a boil
2. Add the rice and stir until it is evenly distributed; bring back to a boil. Add a can of crushed tomatoes and green chilies to create a Spanish style rice.
3. Put a cover on the saucepan and set aside off of the heat for 10 minutes
4. Open canned black beans and rinse under cold water in a colander
5. If using, open and rinse canned corn in a colander
6. Heat oil in a large frying pan over medium heat
7. Add beans, corn, garlic, salt, and pepper to the frying pan and cook until the corn starts to brown; turn off heat when done
8. In a bowl, mix together cooked rice, lime juice, and cilantro
9. Top the rice mixture with the cooked beans and corn, cheese (if using), tomato, avocado, green onion, lettuce, and crumbled tortilla chips.
10. Enjoy
