

5 COOKING DEMONSTRATION: STIR-IT-UP STIR FRY

INTRODUCTION

The Food and Drug Administration requires most packaged foods and beverages to have a **Nutrition Facts Label** ("Labeling & Nutrition," 2011). Food manufacturers provide the nutritional content of their product to help consumers make informed choices about the foods they eat.

Serving size is the first item listed at the top of the label. Each type of food has a standard serving size and the nutrients listed on the label are based on that serving. Next, the label displays the amount of **calories** in the serving and how many of those calories come from fat.

The amounts of nutrients are broken out individually within one serving and are represented by grams (g) and **percent (%) daily value**. The percent daily value represents the percentage of the recommended amount of a nutrient that is provided in one serving of a food. The percent daily value is based on a 2,000 calorie diet, so if your daily caloric needs are greater or less than 2,000, the percent daily value may be different than what is listed on the Nutrition Facts Label. Percent daily value can help us decide if a food is high or low in a nutrient: 5% or less is low and 20% or more is high.

The first nutrient listed is **total fat**, followed by two subgroups of **fats: saturated fat** and **trans fat**. It is recommended that we choose foods that are low in saturated fat and avoid foods with trans fat (Dietary Guidelines for Americans, 2010). **Cholesterol** and **sodium** are listed next. It is recommended that we choose foods that are low in cholesterol and sodium.

Total carbohydrate represents starches, sugars, and fiber. The two subgroups of carbohydrates listed on food labels are **dietary fiber** and **sugars**. It is recommended that we choose foods that are high in fiber. Sugars represent all types of sugar in the food, including those that are naturally in the food (e.g. fruit and milk) and added sugars. It is recommended that we reduce our intake of foods that are high in added sugars. The Nutrition Facts Label does not specify how many grams or percent daily value of added sugars, but we can look at the **ingredients** list instead. Listed below sugars is **protein**, which is listed in grams but not in percent daily value.

Vitamins and **minerals** are listed together. The four vitamins and minerals shown on food labels are vitamin A, vitamin C, calcium, and iron. It is recommended that we choose foods that are high in these vitamins and minerals.

Ingredients are displayed near the Nutrition Facts Label. These ingredients are listed in order from greatest amount to least amount. The ingredients list can be used to avoid foods that are high in added sugars. If a food has sugar listed in one of the first few ingredients, the food is high in added sugars. Names for added sugars include sugar, molasses, honey, maltose, dextrose, sucrose, and fructose.

MyPlate is a nutrition guide developed by the United States Department of Agriculture (USDA). It illustrates the five food groups that are the building blocks for a healthy diet using a familiar image – a place setting for a meal. The five food groups included in MyPlate are: fruits, vegetables, grains, protein, and dairy. MyPlate includes recommendations relative to the amounts of each food that should be consumed within each group depending on age, gender, and amount of physical activity. One of the recommendations illustrated by MyPlate is to make half of a person's plate fruits and vegetables.



A **serving size** is the amount displayed on the **Nutrition Facts** label found on food packaging that indicates the amount of nutrients you can obtain from one serving of a food. One serving size of fruit is $\frac{1}{2}$ cup or 1 small apple. Servings of vegetables can come from fresh, canned, dried, pureed, or frozen, as well as 100% vegetable juice. One serving of vegetables is 1 cup for most vegetables. However, one serving of raw leafy greens like spinach is 2 cups and one serving of cooked leafy greens is 1 cup. One serving of grains is $\frac{1}{2}$ cup for cooked grains like rice, 1 slice of bread, and 1 cup of cereal. Serving sizes for protein are in ounces, with 1 ounce of protein being one serving. One serving of dairy is 1 ounce of cheese, 8 ounces (1 cup) of yogurt, or 8 ounces (1 cup) of milk.

A stir fry is a quick-cooking technique that uses high heat and minimal oil. Youth may be familiar with flavors used in a stir fry, which provides a great opportunity to introduce new vegetables to youth in a familiar way. While preparing the Stir-It-Up Stir Fry, youth can revisit terms and concepts related to the Nutrition Facts Label and the nutrients and items listed on the label, as first explored in *Discovering Healthy Choices*. In this cooking demonstration youth will explore more of the foods they learned about that are grown around the world in the *Discovering Health Choices* Module 1.

CONCEPTS AND VOCABULARY

- **Calories:** a measurement of the amount of energy that a food provides.
- **Cholesterol:** a substance that is used by the body for structural and biological functions, but our bodies can make cholesterol so we do not need to obtain it from our food.
- **Culture:** the beliefs and practices of social groups.
- **Cultural foods:** foods that are prepared by a specific cultural group.
- **Dietary fiber:** a nutrient that helps our digestive system function properly.
- **Ingredients:** a list located near the Nutrition Facts Label which lists the food ingredients in order from largest to smallest amounts.
- **Minerals:** elements that are needed for growth, development and maintenance of the body's tissues, like iron and calcium.
- **MyPlate:** a nutrition guide developed by the United States Department of Agriculture (USDA). It illustrates the five food groups that are the building blocks for a healthy diet.
- **Native:** something that is original to a specific place or region.
- **Nutrients:** substances our bodies need to grow and stay healthy.
- **Nutrition Facts:** a label on food packaging that displays nutritional content of food products.
- **Observation:** the act or instance of noticing, perceiving, or attentively watching an occurrence.
- **Percent (%) daily value:** the percent of the recommended amount of a nutrient that the food provides based on a 2,000 calorie diet.
- **Protein:** a nutrient that helps to build and repair tissues and organs like muscles and the heart; proteins are also metabolized for energy.
- **Serving size:** standard reference amounts that are set by the United States Food and Drug Administration (FDA).
- **Sodium:** a nutrient that is important for many biological functions, but is only needed in small amounts.
- **Stir fry:** to quickly fry meat or vegetables over high heat while stirring.
- **Sugars:** this category represents all types of sugar in one serving, including those that are naturally in the food and added sugars.
- **Total carbohydrate:** the amount of carbohydrates in one serving, including starches, sugars, and dietary fiber.
- **Total fat:** the amount of fat in one serving, including unsaturated, saturated and trans fats.
- **Vitamins:** organic molecules needed for growth, development and maintenance of the body's tissues.

CALIFORNIA NUTRITION EDUCATION COMPETENCIES SUPPORTED

Cooking Up Healthy Choices supports California Nutrition Education Competencies. Please see page 6 for more information about which competencies are supported.

TIME REQUIRED

45 to 60 minutes

DISCOVERING HEALTHY CHOICES MODULES REINFORCED

Modules 1, 3, 4, 5, 6

COUNTRY CONNECTION

China

China is a large country in eastern Asia with many different regions and climates. Most of the land is either mountains or desert, and only about one-tenth of the country can be farmed. Land in eastern China is one of the best places for farming because of the access to water through river systems. Several foods grown in China are also grown in California, including: cabbage, green onions, green beans, apples, pears, and citrus fruits like oranges and mandarins. China is a major exporter of vegetable crops to other countries around the world. The main agricultural crops they sell are rice, tea, wheat, potatoes, peanuts, barley, cotton, pork, and fish. In the Canton province of China, simple stir-fries and rice are commonly eaten. An important idea in Chinese cooking is balance. It is important that the flavors, textures, and colors in every meal are well balanced.



VEGETABLE AND GARDEN CONNECTION

Vegetable	Discovering Healthy Choices Connections
Broccoli	<ul style="list-style-type: none"> • Cool season crop; grown in China and the United States (Module 1) • A good source of B-vitamins and vitamin C (Module 3) • MyPlate Vegetable Subgroup: Dark Green (Module 5) • Nutrient information provided to calculate and create a Nutrition Facts Label for broccoli (Module 6) • Optional ingredient for finger salad recipe (Module 8)
Cabbage	<ul style="list-style-type: none"> • Cool season crop; grown in China and the United States (Module 1) • A good source of B-vitamins, vitamin C, and fiber (Module 3) • MyPlate Vegetable Subgroup: Other (Module 5) • Nutrient information provided to calculate and create a Nutrition Facts Label for cabbage (Module 6) • Optional large-leaf greens for finger salad recipe (Module 8)
Carrots	<ul style="list-style-type: none"> • Cool season crop; grown in Australia, India, and the United States (Module 1) • A good source of vitamin A, vitamin C, and fiber (Module 3) • A serving size of carrots is 1 cup (Module 4) • MyPlate Vegetable Subgroup: Red & Orange (Module 5) • Nutrient information provided to calculate and create a Nutrition Facts Label for carrots (Module 6) • Optional ingredient for finger salad recipe (Module 8)
Garlic	<ul style="list-style-type: none"> • Warm season crop; grown in China and the United States (Module 1) • A good source of carbohydrates, protein, B-vitamins, vitamin C, and calcium (Module 3) • MyPlate Vegetable Subgroup: Other (Module 5) • Nutrient information provided to calculate and create a Nutrition Facts Label for garlic (Module 6)
Kohlrabi	<ul style="list-style-type: none"> • Cool season crop; grown in France, India, and the United States (Module 1) • A good source of vitamin C and fiber (Module 3) • MyPlate Vegetable Subgroup: Other (Module 5) • Nutrient information provided to calculate and create a Nutrition Facts Label for kohlrabi (Module 6) • Optional ingredient for finger salad recipe (Module 8)
Leeks	<ul style="list-style-type: none"> • Warm season crop; grown China and the United States (Module 1) • A good source of vitamin A, B-vitamins, vitamin C, and iron (Module 3) • MyPlate Vegetable Subgroup: Other (Module 5) • Nutrient information provided to calculate and create a Nutrition Facts Label for leeks (Module 6)
Swiss Chard	<ul style="list-style-type: none"> • Cool to warm season crop; grown in France and the United States (Module 1) • A good source of vitamin A and vitamin C (Module 3) • A serving size of raw Swiss chard is 2 cups (Module 4) • MyPlate Vegetable Subgroup: Dark Green (Module 5) • Nutrient information provided to calculate and create a Nutrition Facts Label for Swiss chard (Module 6) • Optional large-leaf greens for finger salad recipe (Module 8)

GETTING READY

1. Make copies of the *Stir-It-Up Stir Fry* handout (Appendix 5B); one for each youth.
2. Make a copy of the *MyPlate* reference sheet (Appendix 5C); one for the facilitator's use.
3. Prepare vegetables by washing them.
Facilitator Tip: If time is limited, chop vegetables prior to beginning the demonstration.
4. Provide each youth with a copy of the *Stir-It-Up Stir Fry* handout. Explain that the youth are to keep the handout upside down until asked to turn it over. Explain that the youth will answer the opening question on the blank side of the handout.
5. **Facilitator Tip:** Encourage youth to ask questions and share personal experiences and interactions with the ingredients throughout the demonstration.

OPENING QUESTIONS/PROMPTS

Ask the youth to respond to each question/prompt below by recording them on the blank back side of the *Stir-It-Up Stir Fry* handout individually, and then sharing their ideas verbally.

- Explain how to read a food label, including where it is found and what it tells you.
- Explain what you look for on a food label.

PROCEDURE (EXPERIENCING)

1. Begin by washing your hands in front of youth. Explain the importance safe food handling practices by washing hands, washing fruits and vegetables, and properly handling and storing the produce and other ingredients.
2. Show each of the ingredients individually and ask youth to share the name of the vegetable, and what they know about it. Confirm the names of the ingredients to the youth.
3. Ask the youth to flip over their handouts. Ask a youth to read the name of the recipe.
4. Ask the youth to answer the first question on the handout throughout the cooking demonstration. Ask them to record their observations of the cooking demonstration.

Facilitator Tip: If the youth are having difficulty describing their observations using their five senses, use the following prompts. When we make observations, we are using our five senses to understand the world around us. Observations are made using sight, smell, taste, touch, and sound. Observations using sight include color, size, and texture. Observations using smell include good or bad smells or comparing it to other familiar smells. Observations using taste may include the flavor and texture. Observations of touch are texture, weight, temperature, and softness. Observations using sound can include things you hear during the demonstration.

Ingredients

Sauce

- 1/4 cup low sodium soy sauce
- 1/4 cup vegetable broth
- 2 tablespoons rice vinegar
- 1 teaspoon sesame oil
- 2 teaspoons corn starch

Stir Fry

- 1 tablespoon canola oil
- 3 stalks of celery, medium chopped
- 2 leeks, medium chopped
- 2 cups carrots, medium chopped
- 1 bell pepper, medium chopped
- 2 cups broccoli, medium chopped
- 2 cups bok choy or baby bok choy, medium chopped
- 3 leaves of Swiss chard, medium chopped
- 1/2 head of Napa cabbage, medium chopped
- 2 kohlrabi, peeled and medium chopped
- 2 tablespoons garlic, finely chopped
- 2 tablespoons fresh ginger, peeled and finely chopped
- 4 cups cooked rice (white or brown)

Facilitator Tips: Precook rice and reheat in microwave or rice cooker.

Facilitator Tips: If any of the ingredients are being grown in the garden and are ready to be harvested, they can be used for this recipe. If possible have youth help with harvesting the vegetables. Be sure to wash the vegetables before use.

Facilitator Tips: Keep refrigerated foods cold at 40°F or below to ensure food safety.

Materials

*Materials provided in curriculum

- **Stir-It-Up Stir Fry master recipe* (Appendix 5A)
- **Stir-It-Up Stir Fry youth handout* (Appendix 5B)
- **MyPlate reference sheet* (Appendix 5C)
- Portable burner
- Wok or skillet
- Spoons, spatulas
- Measuring cups
- Measuring spoons
- Cutting board
- Chef's knife
- Can opener
- Rag
- Trash bags
- Small plates or bowls
- Disposable forks



PROCEDURE (EXPERIENCING) (CONTINUED)

5. Ask the youth to answer the second question on the handout. Explain that they should use what they know about MyPlate to estimate about how many MyPlate servings within each food group are in the recipe.

Facilitator Tip: Youth may need prompting about how to make an educated prediction about how many servings they might eat of each food group.

6. Begin preparing the recipe, according to the Master Recipe (Appendix 5A).
7. Throughout the cooking demonstration describe what you are doing and use the following prompts to generate discussion:
 - Ask the youth to explain what they know about China.
 - Ask the youth to explain what they know about foods in China.
 - Encourage youth to ask questions and share previous experiences and interactions with the ingredients throughout the demonstration.
 - Ask the youth to explain what they know about where these ingredients come from and how they are grown.
 - Ask the youth to explain what they know about which of these ingredients are grown in California.
 - Tell the youth about using different utensils and cookware.
 - Have the youth explain what they know about how to safely handle knives when cooking. Emphasize the importance of keeping knife tip pointed down at the cutting surface, keeping fingers away from area being cut.
 - Have the youth explain what they know about different ways to cut vegetables. Tell the youth about the various cooking techniques being used
 - Which of these ingredients have you tasted before?
 - (If growing an instructional garden) Which of these ingredients are growing in your garden?
 - Ask the students to pass around the food packaging for some of the ingredients so they can look at the food labels. Encourage them to make observations about the information they see.
8. Before serving the samples of stir fry, ask the youth to wash their hands.
9. Serve a sample of the prepared food on individual plates for each youth.
10. Explain that the youth need to answer the second question using their five senses to describe their “Stir-It-Up Stir Fry Experience.”

SHARING, PROCESSING AND GENERALIZING

1. Have youth share their observations from the cooking demonstration (question 1 on the *Stir-It-Up Stir Fry* handout).
2. Have youth share their predictions about how many servings of each food group they would get from eating this recipe, and which ingredients belong in each food group according to MyPlate (question 2 on the *Stir-It-Up Stir Fry* handout).

Facilitator Tip: Use the MyPlate reference sheet (Appendix 5C) to assist in describing MyPlate recommended servings for each of the food groups.

3. Have youth share their “Stir-It-Up Stir Fry Experience” using their five senses (question 3 on the *Stir-It-Up Stir Fry* handout).
4. Ask youth if they tasted any new foods today. And if so, what they thought about those new foods.
5. Ask youth to share their overall opinions of the Stir-It-Up Stir Fry.

Facilitator Tip: This can be done by asking youth to show two thumbs up if they like it or two thumbs down if they did not; you can ask them to record it on their handouts, or have them vote and record on the board the number of youth who liked it and those who did not.

6. Ask youth to discuss how they might change this recipe to include other healthy ingredients. Some examples may include:
 - Other vegetables: cauliflower, collards, spinach, yellow squash, zucchini
 - Fruits: oranges, tangerines, mandarins, pineapple
 - Proteins: tofu, eggs, chicken, beef, pork
 - Other grains: whole wheat noodles

CONCEPT AND TERM DISCOVERY/INTRODUCTION

Make sure that key concepts and vocabulary terms are either discovered by the students or introduced to them: **food safety, cooking techniques, serving amounts for each MyPlate food group, and how we can use food labels to tell us about the nutrients in the food.**

APPENDIX 5A: STIR-IT-UP STIR FRY

5A

Cooking Demonstration 5 Master Recipe

*Recipe makes enough for 30 tastings

INGREDIENTS

Sauce:

- 1/4 cup low sodium soy sauce
- 1/4 cup vegetable broth
- 2 tablespoons rice vinegar
- 1 teaspoon sesame oil
- 2 teaspoons corn starch

Stir Fry:

- 1 tablespoon canola oil
- 3 stalks of celery, medium chopped
- 2 leeks, medium chopped
- 2 cups carrots, medium chopped
- 1 bell pepper, medium chopped
- 2 cups broccoli, medium chopped
- 2 cups bok choy or baby bok choy, medium chopped
- 3 leaves of Swiss chard, medium chopped
- 1/2 head of Napa cabbage, medium chopped
- 2 kohlrabi, peeled and medium chopped
- 2 tablespoons garlic, finely chopped
- 2 tablespoons fresh ginger, peeled and finely chopped
- 4 cups cooked brown rice

Facilitator Tip: To save time, precook rice and reheat in microwave or rice cooker during the cooking demonstration.

INSTRUCTIONS

1. Cook rice according to package directions.
2. Mix soy sauce, vegetable broth, rice vinegar, sesame oil, and corn starch in a medium bowl. Set aside.
3. Heat canola oil in large wok or skillet over medium heat. Add celery, leeks, carrots, and bell pepper. Cook, stirring occasionally, until slightly softened, about 2 minutes.
4. Add broccoli, bok choy, Swiss chard, cabbage, and kohlrabi. Cook for about 3 minutes.
5. Push vegetables to the sides of the pan, clearing a space in the center of the wok or skillet. In the cleared space add garlic and ginger. Cook for 30 seconds, and then stir garlic into vegetables.
6. Add sauce mixture to the vegetables. Mix together and cook for 1 minute.
7. Serve over brown rice.

APPENDIX 5B: STIR-IT-UP STIR FRY

5B

Youth Handout

Recipe serves 4-6 people

Stir Fry

- 1 ½ cups brown rice
- 1 bell pepper, medium chopped
- 1 head baby bok choy, medium chopped
- 1 cup swiss chard, medium chopped
- 1 cup napa cabbage, medium chopped
- 1 small head broccoli, medium chopped
- 1 kohlrabi, peeled and medium chopped
- 1 clove garlic, finely chopped
- 1 tablespoon fresh ginger, peeled and finely chopped
- 1 tablespoon canola oil
- ½ cup celery, medium chopped
- 1 leek, white parts only, medium chopped
- 1 carrot, medium chopped

1. Cook rice according to package directions.
2. Mix soy sauce, vegetable broth, rice vinegar, sesame oil, and corn starch in a medium bowl. Set aside.
3. Heat canola oil in large wok or skillet over medium heat. Add celery, leeks, carrots, and bell pepper. Cook, stirring occasionally, until slightly softened, about 2 minutes.
4. Add broccoli, bok choy, Swiss chard, cabbage, and kohlrabi. Cook for about 3 minutes.
5. Push vegetables to the sides of the pan, clearing a space in the center of the wok or skillet. In the cleared space add garlic and ginger. Cook for 30 seconds, and then stir garlic into vegetables.
6. Add sauce mixture to the vegetables. Mix together and cook for 1 minute.
7. Serve over brown rice.

Sauce

- 2 tablespoons low sodium soy sauce
- 2 tablespoons vegetable or chicken broth
- 1 tablespoon rice vinegar
- ½ teaspoon sesame oil
- 1 teaspoon corn starch

MyPlate Servings in Recipe

Vegetables:

Fruits:

Proteins:

Grains:

Dairy:

Oils:

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1. Observations throughout the cooking demonstration.
 2. Record the number of servings of each food group in this recipe in the box above. Which ingredients belong in each food group?
 3. My Stir-It-Up Stir Fry Experience – Use your 5 senses to describe your food experience in words and pictures.

