



## MATERIALS NEEDED

- 2 sets of 3-by-5-inch cards. Sets are designated by common color.
- 2 labeled containers (large brown bags will work fine)
- Pencils

## TIME NEEDED FOR LESSON

About 35-40 minutes.



# Cost Analysis

## Learner Objectives:

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The 4-H member will:

- Learn to figure cost analysis.
- Learn how to determine cost of amount of ingredient used.
- Learn how to figure total cost of dish.
- Learn how to figure cost per serving.

## Educational Lesson:

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### What is cost analysis?

Cost analysis helps us compare price based on the unit versus the whole item. This means that cost analysis helps us understand how much a serving or single item costs instead of the whole ingredient.

### Why is cost analysis used?

Cost analysis is used to determine the cost of each portion of the meal that you are cooking. It also helps you determine total cost of dish and cost per serving. This is important so that you won't buy too many ingredients and let them go to waste. Cost analysis can also help you save money if you do it correctly.

### How to do cost analysis

Cost analysis is simple. All you have to do is divide the total cost of the item by the number contained in the package. The nutritious facts label will display the number of serving in the package. Once you are done doing this, you know how much each item cost.

### Examples of cost analysis: Formula (total cost divided by the # in the package)

#### Eggs:

A carton of eggs costs \$2.19. There are 12 eggs in each carton.

To figure out the cost per egg, divide 2.19 by 12.

$$2.19/12 = .1825$$

The cost would be 18 cents per egg.

If the recipe you are using calls for 3 eggs, then you multiply .18 by 3.

$$3 \times .18 = .54$$

The total cost of the three eggs to make your recipe is 54 cents.

#### Bread:

A loaf of bread costs \$1.49.

There are 22 slices in each loaf. Use the formula.

$$1.49/22 = .07 \text{ per slice}$$

If you used 6 slices of bread, then you multiply  $.07 \times 6 = .42$  cents

The total cost of the 6 slices of bread would cost you 42 cents.

## Activity: Educational Relay

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Preparation: Prepare a set of cards for each team (two teams with 15 to 20 cards each). Each set of cards should be the same, but there must be a mark that distinguishes the different teams, or two different colored index cards can be used. Each of the cards will have a different problem of cost analysis on it. Containers can be made for each team to place their cards into once they are done solving the problem (large brown bags work fine), or teams can just create a stack of completed cards.

Rules:

1. Divide youth into two (2) teams are selected, and clear the room to allow running a relay.
2. Each student must start behind a line, pick up a card, talk to their team and solve the cost analysis problem together. Use the pencil that is provided, write down their answer on the card, and then run to place it in the container/bag.
3. They must return to tag the next person in line, and repeat step 2 until all cards are used.
4. The winning team (first to deposit all of their cards in the containers) receives 5 points for best speed; the second team will receive 3 points.
5. The instructor will go to the containers and remove the cards, checking with the groups for correct answers. This can be also be done by using an “honest system” and having each team indicate whether they figured the cost analysis correctly and keeping track of their points. The instructor should talk through each problem with the youth. Each correct answer is worth one (1) point.
6. The team with the highest point total wins.

**\*\*\*Examples of questions to write on index cards are on the following pages.**

## Reflection:

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- Why is cost analysis used?
- If you have to use 3 slices of cheese for a recipe, how much are you spending on cheese for your recipe?
- Explain what cost analysis is in your own words.

## References


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- Gilbert, G. G., Sawyer, R. G., & McNeill, B. (2011). *Methods of instruction/intervention. Health Education: Creating Strategies for School and Community Health (3rd Ed)* (pp. 127-128). Sudbury, Mass: Jones and Bartlett Publishers. Adapted by Abby Melendez (2015).
- McVety. (2009). *Determining portion costs and selling prices* (pp. 91-92). Kendall Hunt Publishing. Adapted by Abby Melendez (2015).

Examples of cards:

Ex. 1

If the cost of Ritz crackers is \$3.27, what is the cost per serving?



**RITZ**

**Nutrition Facts**  
Serving Size 5 Crackers (16g)  
Servings Per Container About 28

**Amount Per Serving**

**Calories** 80    Calories from Fat 35

**% Daily Value\***

<b>Total Fat</b> 4g	<b>6%</b>
Saturated Fat 1g	<b>4%</b>
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 135mg	<b>6%</b>
<b>Total Carbohydrate</b> 10g	<b>3%</b>
Dietary Fiber 0g	<b>0%</b>
Sugars 1g	
<b>Protein</b> 1g	

Vitamin A 0%    •    Vitamin C 0%  
Calcium 2%    •    Iron 4%

\* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

Calories:	2,000	2,500
Total Fat	Less than 65g	80g
Sat Fat	Less than 20g	25g
Cholesterol	Less than 300mg	300
Sodium	Less than 2,400mg	2,400mg
Total Carbohydrate	300g	375g
Dietary Fiber	25g	30g

Ex.2

If the cost of Domino sugar is \$2.49, what is the cost per serving?



**Nutrition Facts**  
Serving Size 1 Tsp (3g)  
Servings Per Container about 132

**Amount Per Serving**

**Calories** 10

**% Daily Value\***

<b>Total Fat</b> 0g	<b>0%</b>
<b>Sodium</b> 0mg	<b>0%</b>
<b>Total Carbohydrate</b> 3g	<b>1%</b>
Sugars 3g	
<b>Protein</b> 0g	

\*Percent Daily Values are based on a 2,000 calorie diet.

100% Whole Wheat Bread	
Nutrition Facts	
Serving Size 1 slice(28g)	
Servings Per Container 20	
Amount Per Serving	
<b>Calories</b> 70	Calories from Fat 10
% Daily Value*	
<b>Total Fat</b> 1g	1%
Saturated Fat 0g	0%
Trans Fat 0g	0%
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 135mg	4%
<b>Total Carbohydrate</b> 13g	2%
Dietary Fiber 2g	7%
Sugars 2g	
<b>Protein</b> 3g	
<b>Vitamin A</b> 0%	<b>Calcium</b> 6%
<b>Vitamin C</b> 0%	<b>Iron</b> 4%
<b>Niacin</b> 20%	<b>Vitamin E</b> 10%
<b>Thiamin</b> 6%	<b>Riboflavin</b> 2%
<b>Folic Acid</b> 4%	
*Percent Daily Values are based on a 2,000 calorie diet.	
†Your Daily Values may be higher or lower depending on your calorie needs.	
	Calories 2000 2500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400m 2400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g

Ex. 3

If the cost of Nature's Own Bread is \$2.89, what is the cost per serving?

Nutrition Facts	
Serving Size 1 egg (50g)	
Servings per Container 12	
Amount Per Serving	
<b>Calories</b> 70	Calories from Fat 45
% Daily Value*	
<b>Total Fat</b> 5g	8%
Saturated Fat 1.5g	8%
Trans Fat 0g	
<b>Cholesterol</b> 185mg	62%
<b>Sodium</b> 70mg	3%
<b>Potassium</b> 70mg	2%
<b>Total Carbohydrate</b> 0g	0%
<b>Protein</b> 6g	12%
Vitamin A 6%	Vitamin C 0%
Calcium 2%	Iron 4%
Vitamin D 10%	Thiamin 0%
Riboflavin 15%	Vitamin B6 4%
Folate 6%	Vitamin B12 8%
Phosphorus 10%	Zinc 4%
Not a significant source of dietary fiber and sugars.	
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
	Calories 2,000 2,500
Total Fat	Less than 65g 80g
Sat fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Potassium	3,500mg 3,500mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Protein	50g 65g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	

Ex. 4

If the cost of a carton of eggs is \$2.49, what is the cost per serving?



**Ex. 5**

If the cost of frozen broccoli is \$1.47, what is the cost per serving?



**Ex. 6**

If the cost of Barilla Tri-Color Rotini is \$1.69, what is the cost per serving?



Ex. 7

If the cost of ranch dressing \$2.78, what is the cost per serving?

**INGREDIENTS:** WATER, VEGETABLE OIL (SOYBEAN AND/OR CANOLA), MALTODEXTRIN, BUTTERMILK SUGAR, SALT, LESS THAN 2% OF: SPICES, DRIED GARLIC, DRIED ONION, NATURAL FLAVORS (SOY) EGG YOLK, MODIFIED FOOD STARCH, PHOSPHORIC ACID, VINEGAR, ARTIFICIAL FLAVOR, DISODIUM PHOSPHATE, XANTHAN GUM, MONOSODIUM GLUTAMATE, ARTIFICIAL COLOR, DISODIUM INOSINATE DISODIUM GUANYLATE, SORBIC ACID AND CALCIUM DISODIUM EDTA AS PRESERVATIVES.

**CONTAINS:** MILK, SOY, EGG.

**GLUTEN-FREE.**

<b>Nutrition Facts</b>	Amount/Serving	% DV*	Amount/Serving	% DV*
	Serv. Size 2 Tbsp (30mL) Servings about 35 Calories 80 Calories from fat 70	<b>Total Fat</b> 7g	10%	<b>Total Carb.</b> 3g
	Sat. Fat 1g	5%	Fiber 0g	0%
	Trans Fat 0g		Sugars 2g	
	<b>Cholest.</b> 5mg	1%	<b>Protein</b> 1g	
	<b>Sodium</b> 260mg	11%		
* Percent Daily Values (DV) are based on a 2,000 calorie diet.	Vitamin A 0%	•	Vitamin C 0%	
	Calcium 2%	•	Iron 0%	



Ex. 8

If the cost of a bag of Fritos Original Corn Chips is \$3.98, what is the cost per serving?

<b>Nutrition Facts</b>	
Serving Size: 4 oz. (112g)	
Servings Per Container: 4	
Amount Per Serving	
<b>Calories</b> 170	Cal. from Fat 70
% Daily Value*	
<b>Total Fat</b> 8g	<b>12%</b>
Saturated Fat 3.5g	<b>18%</b>
Trans Fat 0.5g	
<b>Cholesterol</b> 70mg	<b>23%</b>
<b>Sodium</b> 75mg	<b>3%</b>
<b>Total Carbohydrate</b> 0g	<b>0%</b>
<b>Protein</b> 23g	
Iron 15%	
Not a significant source of dietary fiber, sugars, vitamin A, vitamin C and calcium.	
*Percent Daily Values are based on a 2,000 calorie diet.	

**Ex. 9**

If the cost of a 1 pound package of ground beef is \$5.47, what is the cost per serving?

<b>Nutrition Facts</b>	
Serving Size 1 cup (249g)	
Servings Per Container 8	
Amount Per Serving	
<b>Calories</b> 210	Calories from Fat 80
% Daily Value*	
<b>Total Fat</b> 8g	<b>13%</b>
Saturated Fat 5g	<b>26%</b>
Trans Fat 0g	
<b>Cholesterol</b> 30mg	<b>10%</b>
<b>Sodium</b> 200mg	<b>9%</b>
<b>Total Carbohydrate</b> 27g	<b>9%</b>
Dietary Fiber 1g	<b>5%</b>
Sugars 25g	
<b>Protein</b> 9g	
Vitamin A 6%	• Vitamin C 0%
Calcium 30%	• Iron 6%
Vitamin D 30%	
*Percent Daily Values are based on a 2,000 calorie diet.	

**Ex. 10**

If the cost of a half gallon of chocolate milk is \$1.92, what is the cost per serving?

CHICKEN NOODLE SOUP

**Nutrition Facts**

Serving Size 1 cup (240g)  
 Servings Per Container about 2

**Amount Per Serving**

**Calories** 90    **Calories from Fat** 15

**% Daily Value\***

**Total Fat** 1.5g    **2%**

Saturated Fat 0g    **0%**

Trans Fat 0g

**Cholesterol** 5mg    **2%**

**Sodium** 760mg    **32%**

**Total Carbohydrate** 14g    **5%**

Dietary Fiber 2g    **8%**

Sugars 0g

**Protein** 4g

Vitamin A 30% • Vitamin C 0%

Calcium 25% • Iron 25%

Vitamin D 20% • Thiamin 20%

Riboflavin 20% • Niacin 20%

Folic Acid 20%

\*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

**Ex. 11**

If the cost of a can of chicken noodle soup is \$1.58, what is the cost per serving?

**Nutrition Facts**

Serving Size 1 bar (40g)  
 Servings Per Container 5

**Amount Per Serving**

**Calories** 140    **Calories from Fat** 30

**% Daily Value\***

**Total Fat** 3g    **5%**

Saturated Fat 0.5g    **4%**

Trans Fat 0g

**Cholesterol** 0mg    **0%**

**Sodium** 95mg    **4%**

**Total Carbohydrate** 30g    **10%**

Dietary Fiber 9g    **35%**

Sugars 10g

**Protein** 2g

Calcium 10%    •    Iron 2%

Not a significant source of vitamin A and vitamin C.

\* Percent Daily Values are based on a 2,000 calorie diet.

**Ex. 12**

If the cost of a box of Fiber One granola bars is \$2.50, what is the cost per serving?



**Spaghetti Sauce - No Salt, Organic**

12/25 oz

### Nutrition Facts

Serving Size 1/2 cup (120g)  
Servings Per Container About 6

**Amount Per Serving**

**Calories 70**    Calories from fat 25  
**% Daily Value\***

**Total Fat** 2.5g                      **4%**

Saturated Fat 0g                      **0%**

Trans Fat 0g

**Cholesterol** 0mg                      **0%**

**Sodium** 10mg                      **0%**

**Potassium** 330mg                      **9%**

**Total Carbohydrate** 9g                      **3%**

Dietary Fiber 5g                      **20%**

Sugars 4g

**Protein** 2g                      **4%**

Vitamin A 20%    •    Vitamin C 20%

Calcium 4%    •    Iron 10%

Thiamin (B1) 8%    •    Riboflavin (B2) 6%

Niacin (B3) 8%    •    Folate 2%

Phosphorus 4%    •    Magnesium 8%

Zinc 2%

\*Percent Daily Values are based on a 2,000 calorie diet.

**Ex. 13**

If the cost of a jar of spaghetti sauce is \$3.93, what is the cost per serving?



### 100% JUICE

### Nutrition Facts

Serving Size 8 fl. oz. (240 mL)  
Servings Per Container 7

**Amount Per Serving**

**Calories 110**    Calories from Fat 0

**% Daily Value\***

**Total Fat** 0g                      **0%**

**Sodium** 0mg                      **0%**

**Potassium** 450mg                      **13%**

**Total Carbohydrate** 26g                      **9%**

Sugars 22g

**Protein** 2g

Calcium 2%    •    Iron 0%    •    Vitamin C 120%

Niacin 4%    •    Thiamine 10%

Vitamin B6 6%    •    Folate 15%

Not a significant source of calories from fat, trans fat, saturated fat, cholesterol, dietary fiber, vitamin A and iron. Percent Daily Values are based on a 2,000 calorie diet.

**Ex. 14**

If the cost of a carton of orange juice is \$3.38, what is the cost per serving?

Ingredients: Organic orange juice

# Nutrition Facts

Serving Size 1/2 Cup (55g)  
Servings Per Container About 8

## Amount Per Serving

**Calories 240** **Calories from Fat 60**

	% Daily Value*
<b>Total Fat</b> 6g	<b>9%</b>
Saturated Fat 1g	<b>5%</b>
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 150mg	<b>6%</b>
<b>Total Carbohydrate</b> 40g	<b>13%</b>
Dietary Fiber 6g	<b>24%</b>
Sugars 10g	
<b>Protein</b> 6g	<b>12%</b>

Vitamin A 0% • Vitamin C 0%  
Calcium 2% • Iron 100%

\* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat. Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g
Protein		50g	65g

Ex. 15

If the cost of a box of cereal is \$3.22, what is the cost per serving?



Ex. 16

If the cost of a rotisserie chicken is \$6.99, what is the cost per serving?

Ex. 17

If the cost of a package of Oreo's is \$2.98, what is the cost per serving?



**Nutrition Facts**  
Serving Size 2 cookies (29g)  
Servings Per Container about 10

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**Amount Per Serving**

**Calories** 140      **Calories from Fat** 60

---

**% Daily Value \***

<b>Total Fat</b> 7g	<b>11%</b>
Saturated Fat 2g	<b>10%</b>
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 60mg	<b>3%</b>
<b>Potassium</b> 50mg	<b>1%</b>
<b>Total Carbohydrate</b> 21g	<b>7%</b>
Dietary Fiber Less than 1g	<b>2%</b>
Sugars 13g	
<b>Protein</b> Less than 1g	

Ex. 18

If the cost of a pint carton of Ben & Jerry's ice cream is \$3.97, what is the cost per serving?



**Nutrition Facts**  
Serving Size 1/2 cup (101g)  
Servings Per Container 4

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**Amount Per Serving**

**Calories** 260      **Calories from Fat** 130

---

**% Daily Value\***

<b>Total Fat</b> 15g	<b>23%</b>
Saturated Fat 9g	<b>44%</b>
Trans Fat 0g	
<b>Cholesterol</b> 60mg	<b>20%</b>
<b>Sodium</b> 80mg	<b>3%</b>
<b>Total Carbohydrate</b> 28g	<b>9%</b>
Dietary Fiber 1g	<b>3%</b>
Sugars 23g	
<b>Protein</b> 4g	

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Vitamin A 10%      • Vitamin C 0%  
Calcium 15%      • Iron 4%

\*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:



Nutrition Facts	
Serving Size ¼ cup (30g)	
Servings Per Container about 75	
Amount Per Serving	
<b>Calories</b>	100
	<b>% Daily Value*</b>
<b>Total Fat</b> 0g	<b>0%</b>
<b>Sodium</b> 0mg	<b>0%</b>
<b>Potassium</b> 40mg	<b>1%</b>
<b>Total Carbohydrate</b> 22g	<b>7%</b>
Dietary Fiber less than 1g	<b>2%</b>
Sugars less than 1g	
Other Carbohydrate 21g	
<b>Protein</b> 3g	
Iron	6%
Thiamin	10%
Riboflavin	6%
Niacin	8%
Folic Acid	10%

Not a significant source of calories from fat, saturated fat, trans fat, cholesterol, vitamin A, vitamin C and calcium.

\* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Potassium		3,500mg	3,500mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

**Ingredients:** Bleached Wheat Flour, Malted Barley Flour, Niacin (A B Vitamin), Iron, Thiamin Mononitrate (Vitamin B<sub>1</sub>), Riboflavin (Vitamin B<sub>2</sub>), Folic Acid (A B Vitamin).

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Ex. 19

If the cost of Gold Medal's All Purpose Flour is \$2.46, what is the cost per serving?



Ex. 20

If the cost of blueberry PopTarts is \$1.98, what is the cost per serving?

## Answers for examples

1. \$0.12

2. \$0.02

3. \$0.14

4. \$0.20

5. \$0.07

6. \$0.28

7. \$0.08

8. \$0.36

9. \$1.37

10.\$0.24

11.\$0.79

12.\$0.50

13.\$0.66

14.\$0.48

15.\$0.40

16.\$0.87

17.\$0.30

18.\$0.99

19.\$0.03

20.\$0.25



## Activity: Crossword Puzzle

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At the end of the educational lesson, pass out a copy of the puzzle for each student to complete. Give them 7 minutes to try and complete it without notes, if they still aren't done with the puzzle once the 7 minutes are over, allow them to use their notes.

OR

### Preparation Steps Activity

Hand out the recipes that are attached on page 5. Allow the students to work in groups of 3 to 4 and have them put the steps of preparation in order.

OR

### Ingredients Food Preparation

Give the children a list of ingredients from a recipe and work in small groups of 3 to 4 to determine what methods of food preparation they would use and why.

## Reflection:

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- List 3 or more methods of food preparation, and explain what each of them are.
- List at least 3 steps for healthy and clean food preparation.
- Why is having clean hands while in the kitchen important?

## References

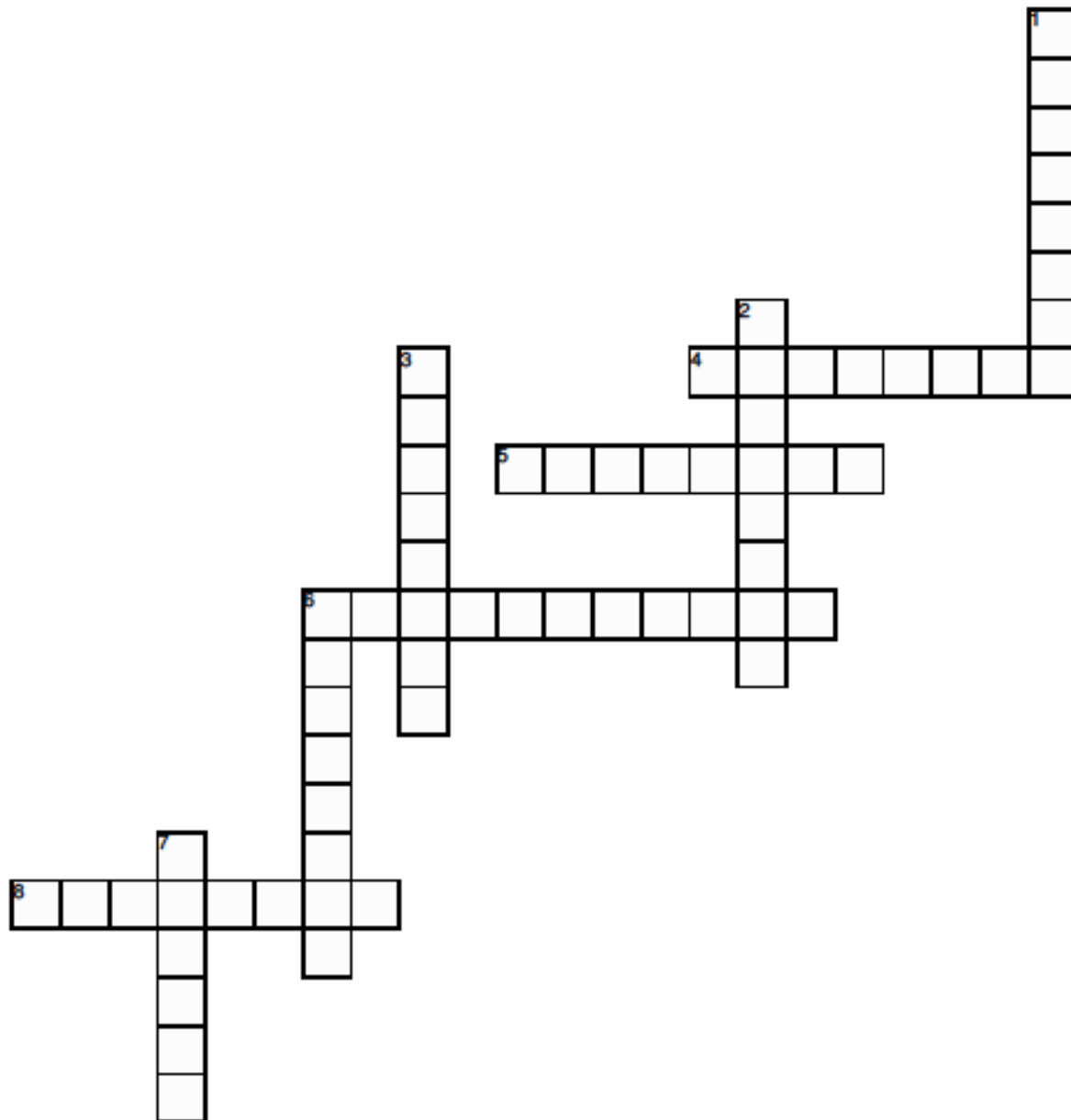
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- ACS Distance Education (2013). *Food Preparation– The Basics*. Retrieved on March 4, 2015, from <http://www.acsedu.co.uk/Courses/Hospitality/FOOD-PREPARATION-BRE212-694.aspx>.
- Mayo Clinic (2014). *Healthy cooking techniques: Boost flavor and cut calories*. Retrieved on March 4, 2015, from <http://www.mayoclinic.org/healthy-living/nutrition-and-healthy-eating/in-depth/healthy-cooking/art-20049346?pg=1>.
- The Teachers Corner (n.d.). *Crossword Puzzle Maker*. Retrieved on March 4, 2015, from <http://worksheets.theteacherscorner.net/make-your-own/crossword/>.
- All Recipes (n.d.) *Award Winning Soft Chocolate Chip Cookies*. Retrieved on March 2, 2015, from <http://allrecipes.com/recipe/award-winning-soft-chocolate-chip-cookies/detail.aspx>.
- Fischbach, A. (2015). *Cheesy chicken pasta bake*. Retrieved on March 2, 2015, from <http://alidaskitchen.com/2015/02/17/cheesy-chicken-pasta-bake-recipe/>.
- Jeanie, Lulu (2015). *Chicken Parmigiana*. Retrieved on March 2, 2015, from <http://jeanieandluluskitchen.com/recipe/chicken-parmigiana/>.

Name: \_\_\_\_\_

# Food Preparation

Complete the crossword below



Created on [TheTeachersCorner.net](http://TheTeachersCorner.net) Crossword Maker

## Across

4. rack is above the heat source
5. this method is like baking but in higher temperature
6. traditional Asian method
8. the simplest method

## Down

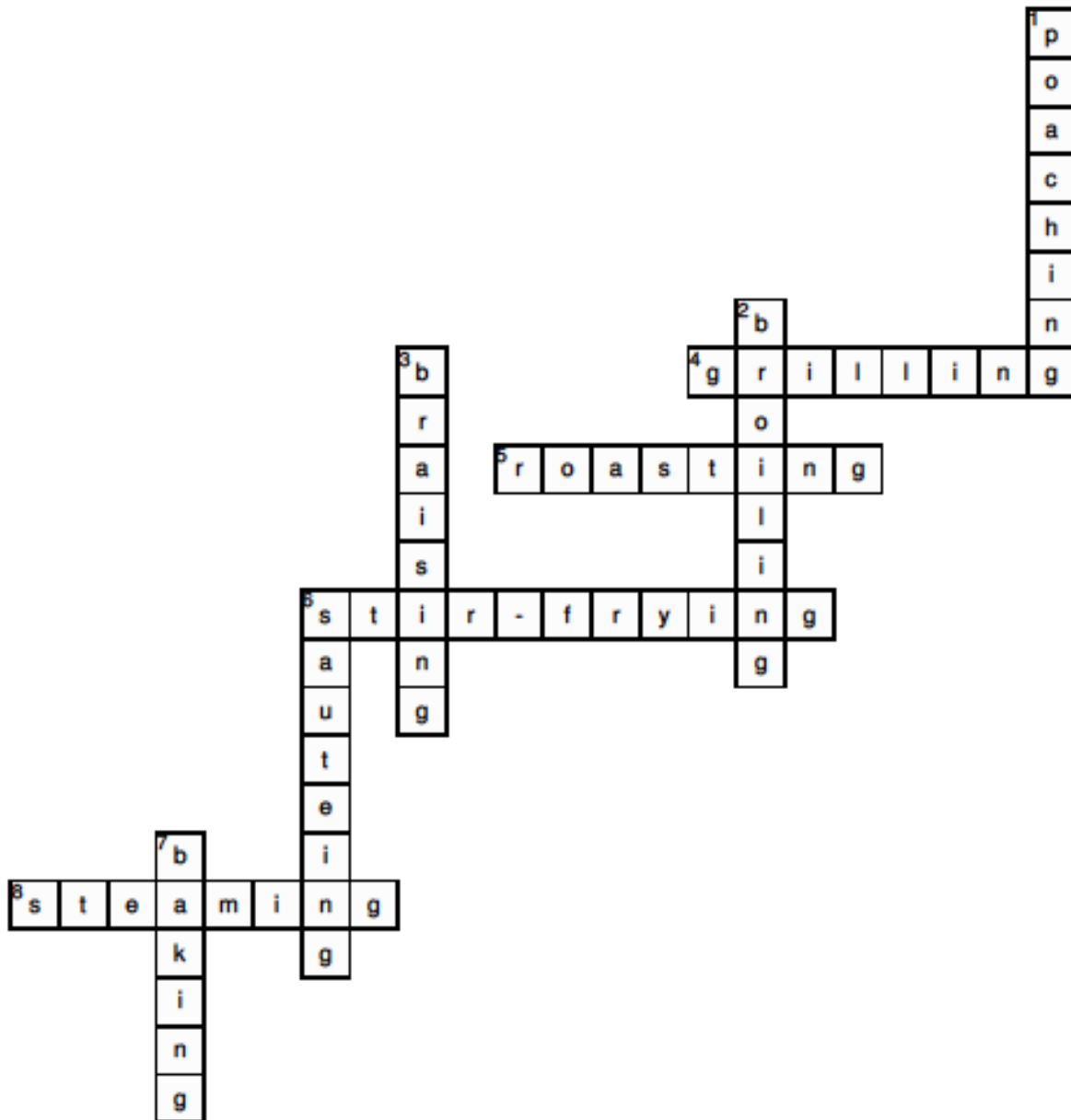
1. gently simmer ingredients in water or broth until tender
2. rack is below the heat source
3. browning ingredients first then letting it slowly cook in liquid
6. cooks food quickly in a small amount of oil
7. placing food into the oven



Name: \_\_\_\_\_

# Food Preparation

Complete the crossword below



Created on [TheTeachersCorner.net](http://TheTeachersCorner.net) Crossword Maker

## Across

- rack is above the heat source (**grilling**)
- this method is like baking but in higher temperature (**roasting**)
- traditional Asian method (**stir-frying**)
- the simplest method (**steaming**)

## Down

- gently simmer ingredients in water or broth until tender (**poaching**)
- rack is below the heat source (**broiling**)
- browning ingredients first then letting it slowly cook in liquid (**braising**)
- cooks food quickly in a small amount of oil (**sauteing**)
- placing food into the oven (**baking**)

# CHICKEN PARMIGIANA

## Directions

1. Get the breaded chicken into the hot oil to pan fry on the first side for about 3 minutes to let it get super crisp and golden. Flip then over to get just as crispy and golden on the other side for another 3 minutes, then remove them to a plate lined with paper towel to blot them.
  2. Once the breading line is set up fill a cast iron skillet with about an inch and a half of canola oil and heat it over medium high heat to pan fry the chicken. Pre-heat the oven to 350 as well. While the oil gets hot put all 4 chicken breasts through the breading line. Use one hand to coat the chicken in the flour, the other hand to dip it in the egg wash mixture, then back to the first hand to coat it in the breadcrumbs. This keeps it as clean and neat as possible. Then just transfer the chicken to the plate once it is breaded.
  3. First, set up the breading line for the chicken with three big, shallow bowls. In the first bowl mix together the flour, dried onion and dried oregano. In the second bowl whisk together the eggs, water and minced garlic. In the third bowl mix together the breadcrumbs and parmesan cheese. Have a plate handy on the end to hold the breaded chicken.
  4. When time is up, take the baking dish out and let the chicken rest a minute. Then sprinkle finely chopped fresh parsley on top for some green freshness and serve immediately!
  5. Move the chicken into a baking dish and top each piece with a 1/4 cup of marinara sauce. Then lay 2 slices of smoked mozzarella on each piece over the marinara to finish assembling the chicken parmigiana. Get the baking dish into the oven to let the chicken parmigiana bake for 15 minutes. The mozzarella will melt gorgeously!
- 

## Award Winning Soft Chocolate Chip Cookies

### Directions

1. Bake for 10 to 12 minutes in the preheated oven. Edges should be golden brown.
  2. Preheat oven to 350 degrees F (175 degrees C). Sift together the flour and baking soda, set aside.
  3. In a large bowl, cream together the butter, brown sugar, and white sugar. Beat in the instant pudding mix until blended. Stir in the eggs and vanilla. Blend in the flour mixture. Finally, stir in the chocolate chips and nuts. Drop cookies by rounded spoonfuls onto ungreased cookie sheets.
- 

## Cheesy Chicken Pasta Bake

### Directions

1. In a large pot, cook pasta to al dente according to package directions.
2. Place chicken in the same nonstick skillet and cook until no longer pink (about 3 to 6 minutes, depending on the size of the pieces). Add vegetables and stir.
3. Put pasta back into large pot. Add vegetables and toss to combine. Pour in pasta sauce and Greek yogurt, 1 cup cheese and stir until combined. Pour into prepared baking dish. Sprinkle with remaining cheese and cover with foil to bake for 10 minutes. Remove foil and bake for an additional 5 minutes, or until cheese is melted and bubbly.
4. Preheat oven to 375F degrees. Spray a 13x9-inch baking dish with cooking spray and set aside.
5. While pasta is cooking, heat oil in a large nonstick skillet. Add onions and pepper, and cook for 5 minutes, or until softened. Add garlic and cook for one minutes, or until fragrant. Move cooked vegetables into a bowl.

**Preparation Steps Activity Answers:**

**Chicken Parmigiana**

3, 2, 1, 5, 4

**Award winning soft Chocolate Chip Cookies:**

2, 3, 1

**Cheesy Chicken Pasta Bake:**

4, 1, 5, 2, 3

## Ingredients & Food Preparation Activity

What method of food preparation should be used for each ingredient?

Ingredient: 4 Mission Artisan Corn & Whole Wheat Blend Tortillas

Method:

Ingredient: 8 oz. Sirloin steak

Method:

Ingredient: ½ cup Teriyaki marinade

Method:

Ingredient: ½ cup cucumber

Method:

Ingredient: ½ cup carrots

Method:

Ingredient: ½ tsp. fresh ginger

Method:

Ingredient: ½ tsp. sesame seeds

Method:

# Food Preparation

## Learner Objectives:

---

The 4-H member will:

- Learn food preparation terminology.
- Learn the purpose of food preparation methods and when to use each.
- Understand the steps for clean and healthy food preparation.

## Educational Lesson:

---

### What are the 8 methods of Food Preparation?

- **Baking** – This is the method of placing food in a pan or dish into the oven. Baking does not require that you add extra fat to the food. If you want to make chicken breasts, season them and then stick them into the oven to bake.
- **Braising** – This involves browning your ingredient first on top of the stove in a pan, then letting your ingredient slowly cook with a small quantity of liquid (such as water or broth) with a lid placed on top of the pan. Braise your beef by placing it in oil until it gets brown, then add liquid to the pan, then cover the pan and let it cook until the meat is tender.
- **Broiling and grilling** – Both of these methods expose food to direct heat. To grill, place the food on a grill rack above a heat source. For broiling, place food on a broiler rack below a heat source. Both of these methods allow the fat in your food to drip away. When barbecuing outside grill the meat in a barbecue pit.
- **Poaching** – For this method, gently simmer ingredients in water or broth until the food is fully cooked and tender. After seasoning the chicken, poach it in water to make it tender.
- **Roasting** – This method is like baking, but in higher temperatures. This method uses the oven's dry heat to cook the food. Roast your sweet potatoes in the oven to make sweet potato fries.
- **Sautéing** – This method cooks food quickly in a small amount of oil in a pan over direct heat. Sauté onions and garlic before adding to soup.
- **Steaming** – This is one of the simplest methods, you steam your food in a perforated basket suspended above simmering liquid. If the liquid is flavorful the food will have that flavor as well. Steam vegetables, such as broccoli.
- **Stir-frying** – This method is a traditional Asian method, it cooks small pieces of food while they're rapidly stirred in a wok or large nonstick frying pan. This method only needs a small amount of oil or cooking spray. Add vegetables, and protein of your choice to a pan in oil and make a stir fry.

### Steps for clean and healthy food preparation

**Step 1:** Source your ingredients. Make sure you have all of your ingredients before you start cooking.

**Step 2:** Wash your hands. Your hands can spread bacteria easily which is why it's important to wash your hands before and after you are cooking.

**Step 3:** Keep your worktops and cooking materials clean. Always keep your materials clean and don't forget to change out your dish cloths regularly because they can harbor bacteria.

**Step 4:** Separate raw meat/fish from dry/ ready prepared ingredients. Keep raw meats away from foods that are ready for consumption.

**Step 5:** Where relevant, wash, peel, chop and grate ingredients before you start cooking.

**Step 6:** Clean up/ clear up as you go along so that you keep work surfaces clean and manageable.



## MATERIALS NEEDED

- 1 copy of crossword puzzle for each student
- Copies of recipes for each group

## TIME NEEDED FOR LESSON

About 20-25 minutes.



## Activity: Crossword Puzzle

---

At the end of the educational lesson, pass out a copy of the puzzle for each student to complete. Give them 7 minutes to try and complete it without notes, if they still aren't done with the puzzle once the 7 minutes are over, allow them to use their notes.

OR

### Preparation Steps Activity

Hand out the recipes that are attached on page 5. Allow the students to work in groups of 3 to 4 and have them put the steps of preparation in order.

OR

### Ingredients Food Preparation

Give the children a list of ingredients from a recipe and work in small groups of 3 to 4 to determine what methods of food preparation they would use and why.

## Reflection:

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- List 3 or more methods of food preparation, and explain what each of them are.
- List at least 3 steps for healthy and clean food preparation.
- Why is having clean hands while in the kitchen important?

## References

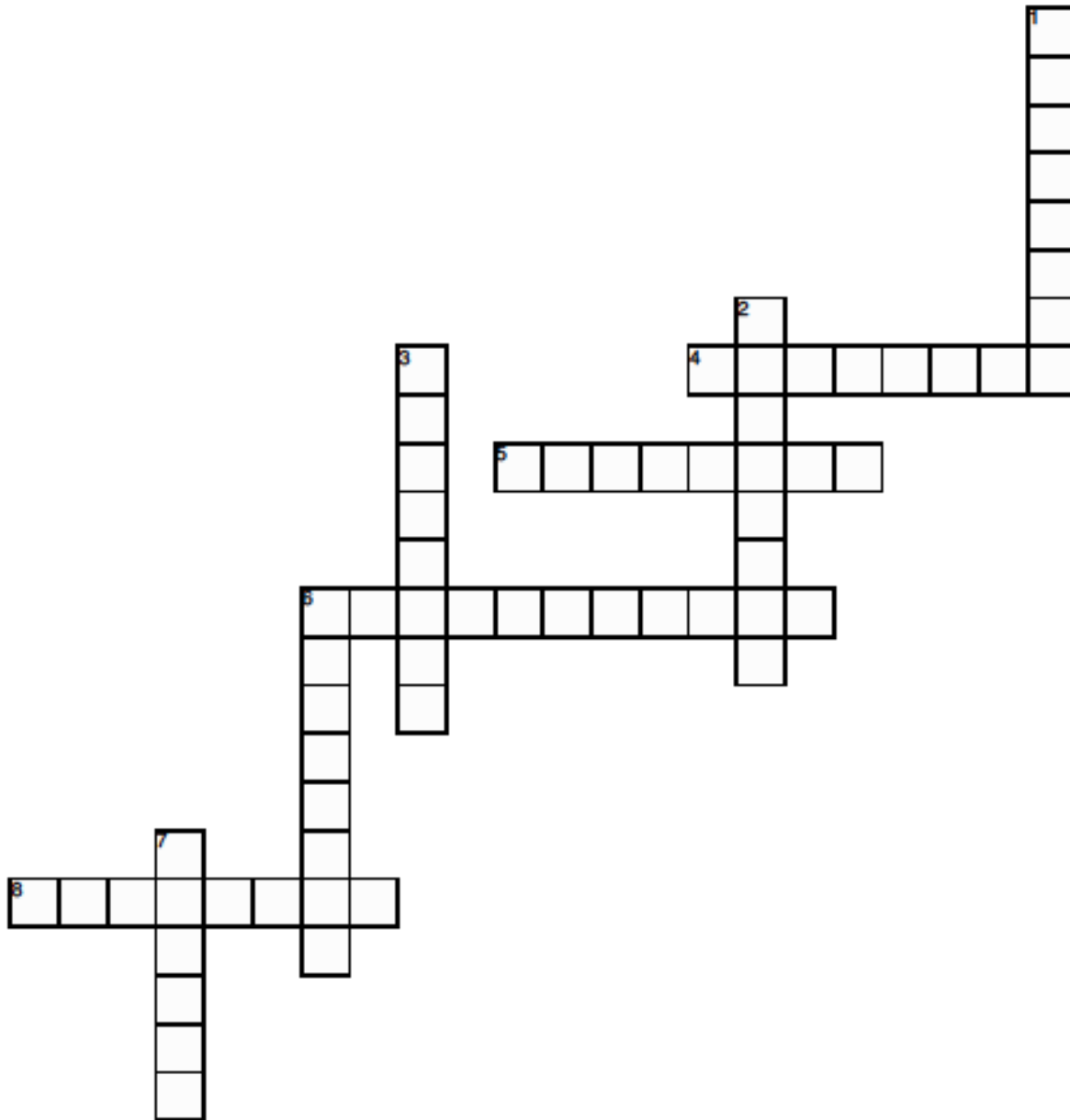
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- ACS Distance Education (2013). *Food Preparation– The Basics*. Retrieved on March 4, 2015, from <http://www.acsedu.co.uk/Courses/Hospitality/FOOD-PREPARATION-BRE212-694.aspx>.
- Mayo Clinic (2014). *Healthy cooking techniques: Boost flavor and cut calories*. Retrieved on March 4, 2015, from <http://www.mayoclinic.org/healthy-living/nutrition-and-healthy-eating/in-depth/healthy-cooking/art-20049346?pg=1>.
- The Teachers Corner (n.d.). *Crossword Puzzle Maker*. Retrieved on March 4, 2015, from <http://worksheets.theteacherscorner.net/make-your-own/crossword/>.
- All Recipes (n.d.) *Award Winning Soft Chocolate Chip Cookies*. Retrieved on March 2, 2015, from <http://allrecipes.com/recipe/award-winning-soft-chocolate-chip-cookies/detail.aspx>.
- Fischbach, A. (2015). *Cheesy chicken pasta bake*. Retrieved on March 2, 2015, from <http://alidaskitchen.com/2015/02/17/cheesy-chicken-pasta-bake-recipe/>.
- Jeanie, Lulu (2015). *Chicken Parmigiana*. Retrieved on March 2, 2015, from <http://jeanieandluluskitchen.com/recipe/chicken-parmigiana/>.

Name: \_\_\_\_\_

# Food Preparation

Complete the crossword below



Created on [TheTeachersCorner.net](http://TheTeachersCorner.net) Crossword Maker

## Across

4. rack is above the heat source
5. this method is like baking but in higher temperature
6. traditional Asian method
8. the simplest method

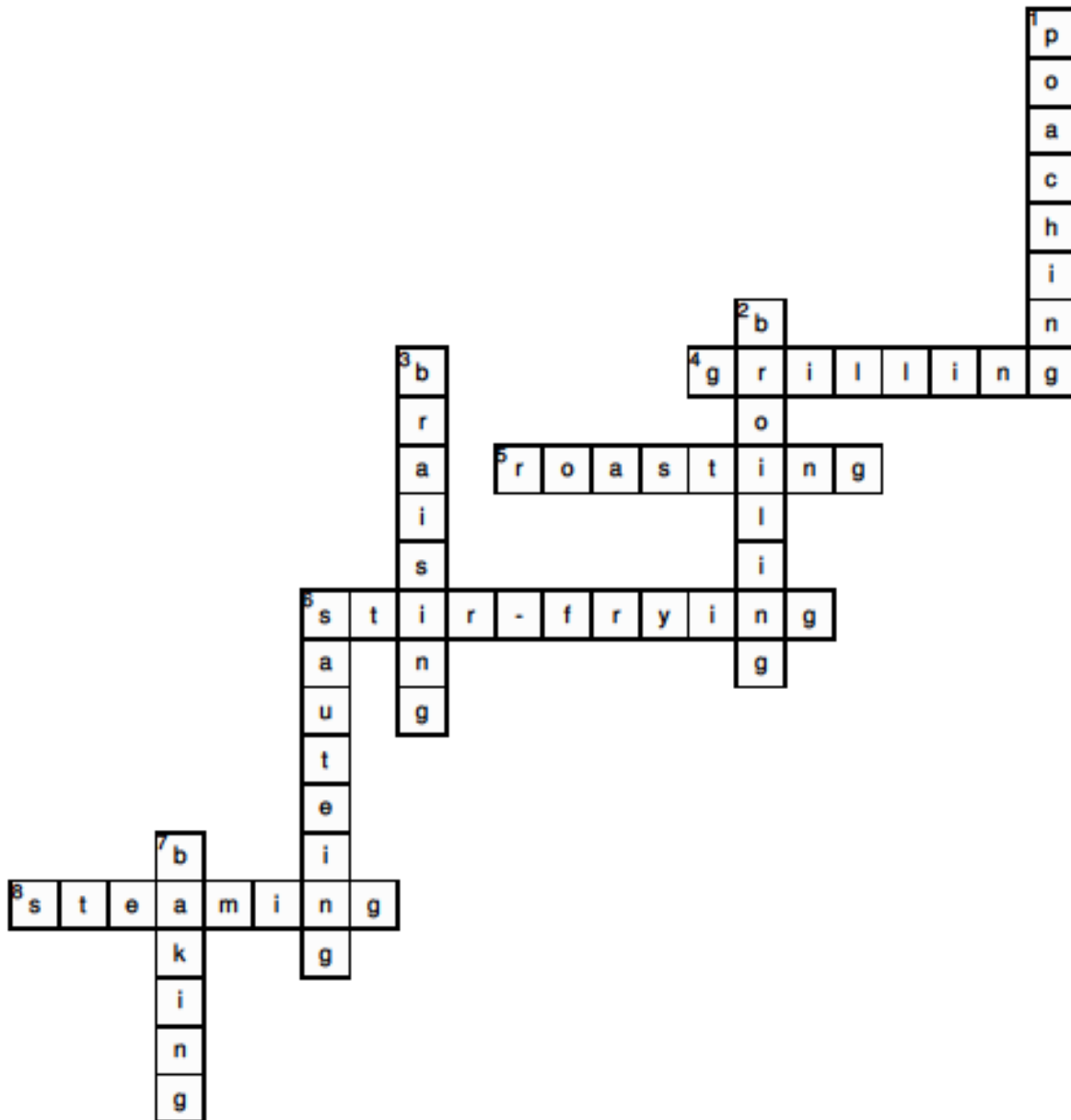
## Down

1. gently simmer ingredients in water or broth until tender
2. rack is below the heat source
3. browning ingredients first then letting it slowly cook in liquid
6. cooks food quickly in a small amount of oil
7. placing food into the oven

Name: \_\_\_\_\_

# Food Preparation

Complete the crossword below



Created on [TheTeachersCorner.net](http://TheTeachersCorner.net) Crossword Maker

## Across

- rack is above the heat source (**grilling**)
- this method is like baking but in higher temperature (**roasting**)
- traditional Asian method (**stir-frying**)
- the simplest method (**steaming**)

## Down

- gently simmer ingredients in water or broth until tender (**poaching**)
- rack is below the heat source (**broiling**)
- browning ingredients first then letting it slowly cook in liquid (**braising**)
- cooks food quickly in a small amount of oil (**sautéing**)
- placing food into the oven (**baking**)



# CHICKEN PARMIGIANA

## Directions

1. Get the breaded chicken into the hot oil to pan fry on the first side for about 3 minutes to let it get super crisp and golden. Flip then over to get just as crispy and golden on the other side for another 3 minutes, then remove them to a plate lined with paper towel to blot them.
  2. Once the breading line is set up fill a cast iron skillet with about an inch and a half of canola oil and heat it over medium high heat to pan fry the chicken. Pre-heat the oven to 350 as well. While the oil gets hot put all 4 chicken breasts through the breading line. Use one hand to coat the chicken in the flour, the other hand to dip it in the egg wash mixture, then back to the first hand to coat it in the breadcrumbs. This keeps it as clean and neat as possible. Then just transfer the chicken to the plate once it is breaded.
  3. First, set up the breading line for the chicken with three big, shallow bowls. In the first bowl mix together the flour, dried onion and dried oregano. In the second bowl whisk together the eggs, water and minced garlic. In the third bowl mix together the breadcrumbs and parmesan cheese. Have a plate handy on the end to hold the breaded chicken.
  4. When time is up, take the baking dish out and let the chicken rest a minute. Then sprinkle finely chopped fresh parsley on top for some green freshness and serve immediately!
  5. Move the chicken into a baking dish and top each piece with a 1/4 cup of marinara sauce. Then lay 2 slices of smoked mozzarella on each piece over the marinara to finish assembling the chicken parmigiana. Get the baking dish into the oven to let the chicken parmigiana bake for 15 minutes. The mozzarella will melt gorgeously!
- 

## Award Winning Soft Chocolate Chip Cookies

### Directions

1. Bake for 10 to 12 minutes in the preheated oven. Edges should be golden brown.
  2. Preheat oven to 350 degrees F (175 degrees C). Sift together the flour and baking soda, set aside.
  3. In a large bowl, cream together the butter, brown sugar, and white sugar. Beat in the instant pudding mix until blended. Stir in the eggs and vanilla. Blend in the flour mixture. Finally, stir in the chocolate chips and nuts. Drop cookies by rounded spoonfuls onto ungreased cookie sheets.
- 

## Cheesy Chicken Pasta Bake

### Directions

1. In a large pot, cook pasta to al dente according to package directions.
2. Place chicken in the same nonstick skillet and cook until no longer pink (about 3 to 6 minutes, depending on the size of the pieces). Add vegetables and stir.
3. Put pasta back into large pot. Add vegetables and toss to combine. Pour in pasta sauce and Greek yogurt, 1 cup cheese and stir until combined. Pour into prepared baking dish. Sprinkle with remaining cheese and cover with foil to bake for 10 minutes. Remove foil and bake for an additional 5 minutes, or until cheese is melted and bubbly.
4. Preheat oven to 375F degrees. Spray a 13x9-inch baking dish with cooking spray and set aside.
5. While pasta is cooking, heat oil in a large nonstick skillet. Add onions and pepper, and cook for 5 minutes, or until softened. Add garlic and cook for one minutes, or until fragrant. Move cooked vegetables into a bowl.

**Preparation Steps Activity Answers:**

**Chicken Parmigiana**

3, 2, 1, 5, 4

**Award winning soft Chocolate Chip Cookies:**

2, 3, 1

**Cheesy Chicken Pasta Bake:**

4, 1, 5, 2, 3

## Ingredients & Food Preparation Activity

What method of food preparation should be used for each ingredient?

Ingredient: 4 Mission Artisan Corn & Whole Wheat Blend Tortillas

Method:

Ingredient: 8 oz. Sirloin steak

Method:

Ingredient: ½ cup Teriyaki marinade

Method:

Ingredient: ½ cup cucumber

Method:

Ingredient: ½ cup carrots

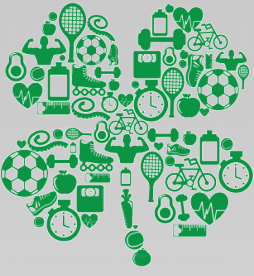
Method:

Ingredient: ½ tsp. fresh ginger

Method:

Ingredient: ½ tsp. sesame seeds

Method:



## Food Substitutions

### MATERIALS NEEDED

- Printed copies of recipes

### Learner Objectives:

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The 4-H member will:

- Learn why food substitution are important to a healthy diet.
- Be able to list at least 5 or more food substitutions to create a dish that is healthier.

### Educational Lesson:

---

#### What is a Food Substitution?

Food substitution is the simple art of altering a recipe to make it healthier. There are many ways to create healthy food recipes by just replacing one simple ingredient and not having to sacrifice taste and enjoyment. Below are a few examples of food substitution.

#### Simple Food Substitutions

Instead of	Try this
Butter, margarine, shortening or oil in baked goods	Applesauce or prune puree for half of the called-for-butter, or butter spreads that don't have trans fats
Eggs	Two egg whites
Pasta, enriched (white)	Whole-wheat pasta
Sour cream, full fat	Fat-free or low-fat sour cream, plain fat-free or low fat yogurt
Regular ground beef	Lean ground beef or lean ground turkey
Whole milk	1% milk or skim milk
Flour, all-purpose (plain)	Whole-wheat flour for half of the recipe and all-purpose for the other half
Bread crumbs, dry	Rolled oats or crushed bran cereal
Butter, margarine, shortening or oil to prevent sticking	Cooking spray or nonstick pans
Sugar	Reduce the amount of sugar by one-half; intensify sweetness by adding vanilla, nutmeg, or cinnamon
White bread	Whole-grain bread

### TIME NEEDED FOR LESSON

About 25-30 minutes.



## Activity: Recipes

---

Divide the students into 3 evenly split teams. Each team will receive a recipe and will be required to make at least 3 substitutions to make it a healthier option. Allow the students about 7 minutes to brainstorm. Once they are finished, instruct each group to present what they came up with.

\*\*\*Recipes are attached or any recipe may be used.

## Reflection:

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- What is a food substitution?
- List a food substitution for regular ground beef.
- List a food substitution that wasn't listed in the educational lesson.

## References

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- Mayo Clinic (2014). *Healthy Recipes: A guide to ingredient substitutions*. Retrieved on March 2, 2015, from <http://www.mayoclinic.org/healthy-living/nutrition-and-healthy-eating/in-depth/healthy-recipes/art-20047195>.
- All Recipes (n.d.) *Award Winning Soft Chocolate Chip Cookies*. Retrieved on March 2, 2015, from <http://allrecipes.com/recipe/award-winning-soft-chocolate-chip-cookies/detail.aspx>.
- Fischbach, A. (2015). *Cheesy chicken pasta bake*. Retrieved on March 2, 2015, from <http://alidaskitchen.com/2015/02/17/cheesy-chicken-pasta-bake-recipe/>.
- Jeanie, Lulu (2015). *Chicken Parmigiana*. Retrieved on March 2, 2015, from <http://jeanieandluluskitchen.com/recipe/chicken-parmigiana/>.
- Bielamowicz, M. C. (2012). *Altering Recipes for Good Health*. *Texas A&M Agrilife Extension*, pp.8.
- Health & Human Services (n.d.). *Tips for Healthy Substitutes*. Retrieved on April 8, 2015, from [http://www.health.gov/dietaryguidelines/dga2005/healthieryou/html/tips\\_healthy\\_subs.html](http://www.health.gov/dietaryguidelines/dga2005/healthieryou/html/tips_healthy_subs.html).

# Chicken Parmigiana

## Ingredients

### FOR THE CHICKEN

- $\frac{3}{4}$  cup [all-purpose flour](#)
- $\frac{1}{2}$  teaspoon [dried onion](#)
- $\frac{1}{2}$  teaspoon [dried oregano](#)
- 2 whole [eggs](#)
- 1 dash [water](#)
- $\frac{1}{2}$  tablespoon [minced garlic](#)
- $\frac{3}{4}$  cup [seasoned breadcrumbs](#)
- 1 tablespoon [freshly grated parmesan cheese](#)
- 4 whole [boneless skinless chicken breasts](#)
- [canola oil](#) as much needed for pan frying

### FOR ASSEMBLING THE CHICKEN PARMIGIANA

- 1 jar [homemade marinara](#)
- 8 slices [mozzarella](#)
- [fresh parsley](#) finely chopped as needed for garnish

## Instructions

1. First, set up the breading line for the chicken with three big, shallow bowls. In the first bowl mix together the flour, dried onion and dried oregano. In the second bowl whisk together the eggs, water and minced garlic. In the third bowl mix together the breadcrumbs and parmesan cheese. Have a plate handy on the end to hold the breaded chicken.
2. Once the breading line is set up fill a cast iron skillet with about an inch and a half of canola oil and heat it over medium high heat to pan fry the chicken. Pre-heat the oven to 350 as well. While the oil gets hot put all 4 chicken breasts through the breading line. Use one hand to coat the chicken in the flour, the other hand to dip it in the egg wash mixture, then back to the first hand to coat it in the breadcrumbs. This keeps it as clean and neat as possible. Then just transfer the chicken to the plate once it is breaded.
3. Get the breaded chicken into the hot oil to pan fry on the first side for about 3 minutes to let it get super crisp and golden. Flip then over to get just as crispy and golden on the other side for another 3 minutes, then remove them to a plate lined with paper towel to blot them.
4. Move the chicken into a baking dish and top each piece with a  $\frac{1}{4}$  cup of marinara sauce. Then lay 2 slices of smoked mozzarella on each piece over the marinara to finish assembling the chicken parmigiana. Get the baking dish into the oven to let the chicken parmigiana bake for 15 minutes. The mozzarella will melt gorgeously!
5. When time is up, take the baking dish out and let the chicken rest a minute. Then sprinkle finely chopped fresh parsley on top for some green freshness and serve immediately!

# Award Winning Soft Chocolate Chip Cookies

## Ingredients:

- 4 1/2 cups of all-purpose flour
- 2 teaspoons baking soda
- 2 cups butter, softened
- 1 1/2 cups packed brown sugar
- 1/2 cup white sugar
- 2 packages instant vanilla pudding mix
- 4 eggs
- 4 cups semisweet chocolate chips
- 2 cups chopped walnuts

## Directions

1. Preheat oven to 350 degrees F (175 degrees C). Sift together the flour and baking soda, set aside.
2. In a large bowl, cream together the butter, brown sugar, and white sugar. Beat in the instant pudding mix until blended. Stir in the eggs and vanilla. Blend in the flour mixture. Finally, stir in the chocolate chips and nuts. Drop cookies by rounded spoonfuls onto ungreased cookie sheets.
3. Bake for 10 to 12 minutes in the preheated oven. Edges should be golden brown.

# **Cheesy Chicken Pasta Bake**

## **Ingredients**

- 1 box (16 ounces) pasta (I used Gemelli)
- 1 tablespoon oil
- 1 yellow onion, chopped
- 1 red bell pepper, chopped
- 2 cloves garlic, minced
- 1 pound boneless, skinless chicken breast, cut into bite-sized pieces
- 1 jar (32 ounces) pasta sauce (I used tomato basil)
- ½ cup nonfat Greek yogurt
- 2 cups Sargento Chef Blends Shredded 6 Cheese Italian, divided

## **Instructions**

1. Preheat oven to 375F degrees. Spray a 13x9-inch baking dish with cooking spray and set aside.
2. In a large pot, cook pasta to al dente according to package directions.
3. While pasta is cooking, heat oil in a large nonstick skillet. Add onions and pepper, and cook for 5 minutes, or until softened. Add garlic and cook for one minutes, or until fragrant. Move cooked vegetables into a bowl.
4. Place chicken in the same nonstick skillet and cook until no longer pick (about 3 to 6 minutes, depending on the size of the pieces). Add vegetables and stir. Put pasta back into large pot. Add vegetables and toss to combine. Pour in pasta sauce and Greek yogurt, 1 cup cheese and stir until combined. Pour into prepared baking dish. Sprinkle with remaining cheese and cover with foil to bake for 10 minutes. Remove foil and bake for an additional 5 minutes, or until cheese is melted and bubbly.



## Substitutions for recipes

### Chicken Parmigiana:

Instead of	Try this
All-purpose flour	Whole wheat flour
Whole eggs	Egg whites
Bread crumbs	Rolled oats or crushed bran cereal
Freshly grated parmesan cheese	Fat free or reduced calorie cheese
Mozzarella	Part-skim, low moisture mozzarella cheese

### Award Winning Soft Chocolate Chip Cookies

Instead of	Try this
All-purpose flour	Whole wheat flour
Butter, softened	Applesauce or prune puree/ butter spreads
Brown sugar/ white sugar	Reduce the amount of sugar by one-half or intensify sweetness by adding vanilla, nutmeg or cinnamon
Eggs	Egg whites
Semisweet chocolate chips	Sugar free chocolate chips

### Cheesy Chicken Pasta Bake

Instead of	Try this
White pasta	Whole wheat pasta
Cheese	Fat-free cheese or reduced calorie cheese/



## MATERIALS NEEDED

Any of the following:

- Vegetable peeler
- Zucchini
- Carrots
- Chocolate bar
- Deviled eggs (ingredients)
- Salsa (ingredients)
- Lemons
- Gremolata (ingredients)
- Pipers
- Tomatoes
- Radishes

## TIME NEEDED FOR LESSON

About 30-35 minutes



# Garnishing

## Learner Objectives:

---

The 4-H member will:

- Learn why garnishing is an important part of cooking.
- Be able to list at least 2 or more ways to garnish a plate.
- Be able to garnish their plate more efficiently.

## Educational Lesson:

---

### What is Food Garnishing?

- Food garnishing is adding a decorative piece of an edible ingredient such as parsley, lemon wedges, croutons or chocolate curls as a finishing touch to a dish or drink. There are many ways to garnish your food, and you have to be able to use your imagination and creative side.

### Ways to garnish food

- Add curls & twirls: use a vegetable peeler to shave large curls of any food you want. This can vary from cheese to fruits or even chocolate. Some examples include: topping salads or pasta dishes with curls of parmesan, arranging chocolate curls on top of a cake or cupcakes, or making twirls with carrots and zucchini.
- Add Gremolata: you can top your entrees and soups with gremolata, this is an Italian garnish consisting of chopped parsley, garlic and lemon peel. You can try other combinations so that it compliments the main dish. For example: minced lime peel, cilantro, and toasted coconut on top of grilled shrimp or minced lemon peel, basil and shallot on top of baked chicken.
- Add chives: use chives to garnish any savory dish. You can use them whole or cut them into shorter sections.
- Slices and sprigs: lemon or lime halves paired with a sprig of cilantro or parsley will add a simple splash of color to your plate.
- Add specks of color: stir chopped fresh herbs into cooked rice or add avocado slices to brown rice.
- Piping can be used for other foods not just dessert: make deviled eggs with the help of piping. You can pipe food by filling a piping bag with an ingredient (chocolate, mayonnaise, etc.) and snipping off the tip. Then you are able to draw any shape that you would like on a cake or on your deviled eggs, piping makes precision much easier.
- Salsa: make salsas out of fruits or vegetables that compliment the entrée and top the main dish with the salsa. For example: stir together fresh corn, diced red pepper, green onions and a little lime juice. This will add both flavor and color to your dish.
- Skewers: use large toothpicks or small wooden skewers to present the food that is complementary to the main dish. For example: thread pieces of cooked sausage and cubes of crusty bread onto the toothpicks and serve with hearty bean soups.

## Activity: Cooking Demonstration

---

For this activity, you will demonstrate to the children a few examples of simple garnishing.

- Curls & Twirls using a vegetable peeler.
- Teach how to make gremolata (Italian garnish consisting of chopped parsley, garlic, and lemon peel) then place it on the chicken breast.
- How to make deviled eggs by piping.
- How to make a salsa and add it as a topping to the chicken breast.
- Adding slices and sprigs to an entrée.

Throughout this lesson, ask the children what they think would look good on certain plates.

Once you are done with the demonstration, allow the students to practice the garnishing skills that were demonstrated.

## Reflection:

---

- What is the definition of garnishing?
- List 3 ways to garnish a plate.
- If you had to decorate a plate of chicken alfredo, what kind of garnishing would you add?

## References

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- Campbell's Kitchen (n.d.). *Top Ten Garnishes*. Retrieved on March 9, 2015, from <http://www.campbellskitchen.com/cookingtips/gettingcreative/top%20ten%20garnishes>.
- BBC (n.d.). *How to pipe chocolate decorations*. Retrieved on April 7, 2015, from [http://www.bbc.co.uk/food/techniques/how\\_to\\_pipe\\_chocolate\\_decorations](http://www.bbc.co.uk/food/techniques/how_to_pipe_chocolate_decorations).

# Germs

## Learner Objectives:

---

The 4-H member will:

- Know what germs are.
- Be able to list at least 2 different kinds of germs.
- Understand how germs are spread.

## Educational Lesson:

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### What are Germs?

Germs are tiny microorganisms; they are so tiny that the human eye can't see them. Germs are everywhere; they are on our skin, in dirt, in water, on plants, and on animals. Germs are even in the air. Some germs are not harmful, but some of them can cause infectious diseases like a cold or the flu.

### Different Types of Germs

There are 4 different types of germs: Bacteria, Viruses, Fungi, and Protozoa.

Bacteria are one-celled organisms, that are only seen through a microscope. Some bacteria cause diseases like strep throat, tuberculosis, and urinary tract infection. Most bacterial diseases can be cured with antibiotics.

Viruses are capsules that contain genetic material. Viruses reproduce by invading healthy cells in your body and hijacking them and changing how the cells work. Viruses are responsible for causing many diseases such as: AIDS, common cold, the Flu, and chicken pox.

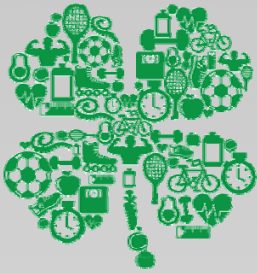
Fungi comes in all shapes and sizes. Candida is an infection that can be given to people and it is caused by yeast which is a type of fungi, this is usually called a yeast infection. Other examples of fungi infections are athlete's foot and ringworm, these will be covered in the hygiene lesson plan.

Protozoa is harmful and can cause diseases such as giardia, malaria, and toxoplasmosis. This single-celled organism invades the human body by multiplying easily which is why they have a great advantage against humans. Protozoa is contagious and can be transmitted through sharing food, or even touching the person that has it. Some of these diseases are very common (malaria & toxoplasmosis) and other are rare (giardia).

### Healthy Habits that Prevent the Spread of Germs

There are many ways to protect yourself from germs such as:

1. Washing Hands Often
2. Coughing & Sneezing into your elbow
3. Don't Share Personal Items (EX. Toothbrush, towels, or razors)
4. Get Vaccinated
5. Stay at Home When Sick



### MATERIALS NEEDED

- 1 Beach ball
- Glo-Germ kit
- Hand washing soap
- Sink

### TIME NEEDED FOR LESSON

About 25-30 minutes.



## Activity: Popcorn Beach ball

---

In this activity, the instructor will toss a beach ball around the classroom. Whoever catches the beach ball must give one fact they learned from this lesson. If the fact the student stated was wrong, be sure to correct them. Once the student is done stating the fact they can throw it to whomever they would like. Once the children are done stating facts, apply the Glo-Germ cream on the beach ball to show the kids how fast germs spread.

After this activity, properly show the children how to wash their hands:

- **Wet** your hands with clean, running water (hot or cold), turn off the tap and apply soap.
- **Lather** your hands by rubbing them together with the soap. Be sure to lather your whole hand and don't miss any spots.
- **Scrub** your hands for at least 20 seconds. Sing the happy birthday song from beginning to end twice.
- **Rinse** your hands well under clean, running water.
- **Dry** your hands with a clean towel or air dry them.

## Reflection:

---

- Where are germs located? Are all germs harmful?
- Name at least two types of germs.
- What are 3 ways to prevent the spread of germs?

## References:

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- Mayo Clinic (2014). *Germs: Understand and Protect Against Bacteria, Viruses, and Infection*. Retrieved on February 2, 2015, from <http://www.mayoclinic.org/diseases-conditions/infectious-diseases/in-depth/germs/ART-20045289>.
- Communicable Disease Control and Prevention: San Francisco Department of Public Health (n.d.). *Protect Yourself With Healthy Habits*. Retrieved on February 2, 2015, from <http://www.sfc-dcp.org/healthyhabits.html>.
- Communicable Disease Control and Prevention: San Francisco Department of Public Health (n.d.). *Germs*. Retrieved on February 2, 2015, from <http://www.sfc-dcp.org/germs.html>.
- Med-Health (2015). *Protozoan Diseases*. Retrieved on April 6, 2015, from <http://www.med-health.net/Protozoan-Diseases.html>.
- Centers for Disease Control and Prevention (2014). *When & How to Wash Your Hands*. Retrieved on April 14, 2015, from <http://www.cdc.gov/handwashing/when-how-handwashing.html>.



## Activity:

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- If possible, watch “Knife Skills Video” at [www.http://cookingtogethercookingforever.org](http://cookingtogethercookingforever.org) with participants.
- Pass out the handout “Anatomy of a Knife”.
- *Discuss basic concepts briefly, including:*
  - Sharpening a knife, how to carry knives, the claw, and how to hold knives when cutting

### Leader Demo:

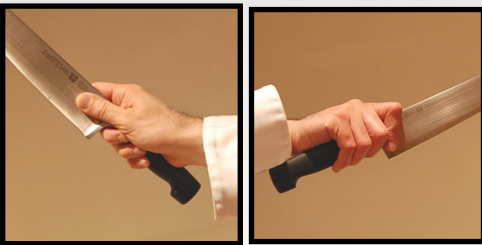
Wash hands with soap and water before beginning.

Review & show how to hold a knife properly.

Demonstrate how to carry a knife correctly. (Knife must be held at the person's side with the tip facing downwards. The sharp edge of the blade must be facing backwards).

Demonstrate how to make a claw when cutting.

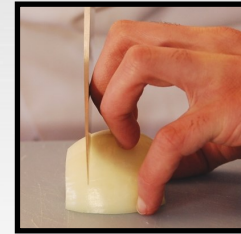
Gather cutting board, knife and vegetables. With vegetables and tools, demonstrate basic cutting skills using claw concept and emphasizing safety.



Holding a Knife Properly



Carry a Knife Correctly



The “Claw” Cutting Method

**Group Practice:** Break participants up into four groups. Remind participants to wash their hands. With vegetables and tools, 4-H members will practice basic cutting skills using the “claw” concept. Leader should walk around while participants are practicing to ensure safe cutting skills. To begin, the leader could ask each group to demonstrate safe cutting methods before beginning individual practice.

## Reflection:

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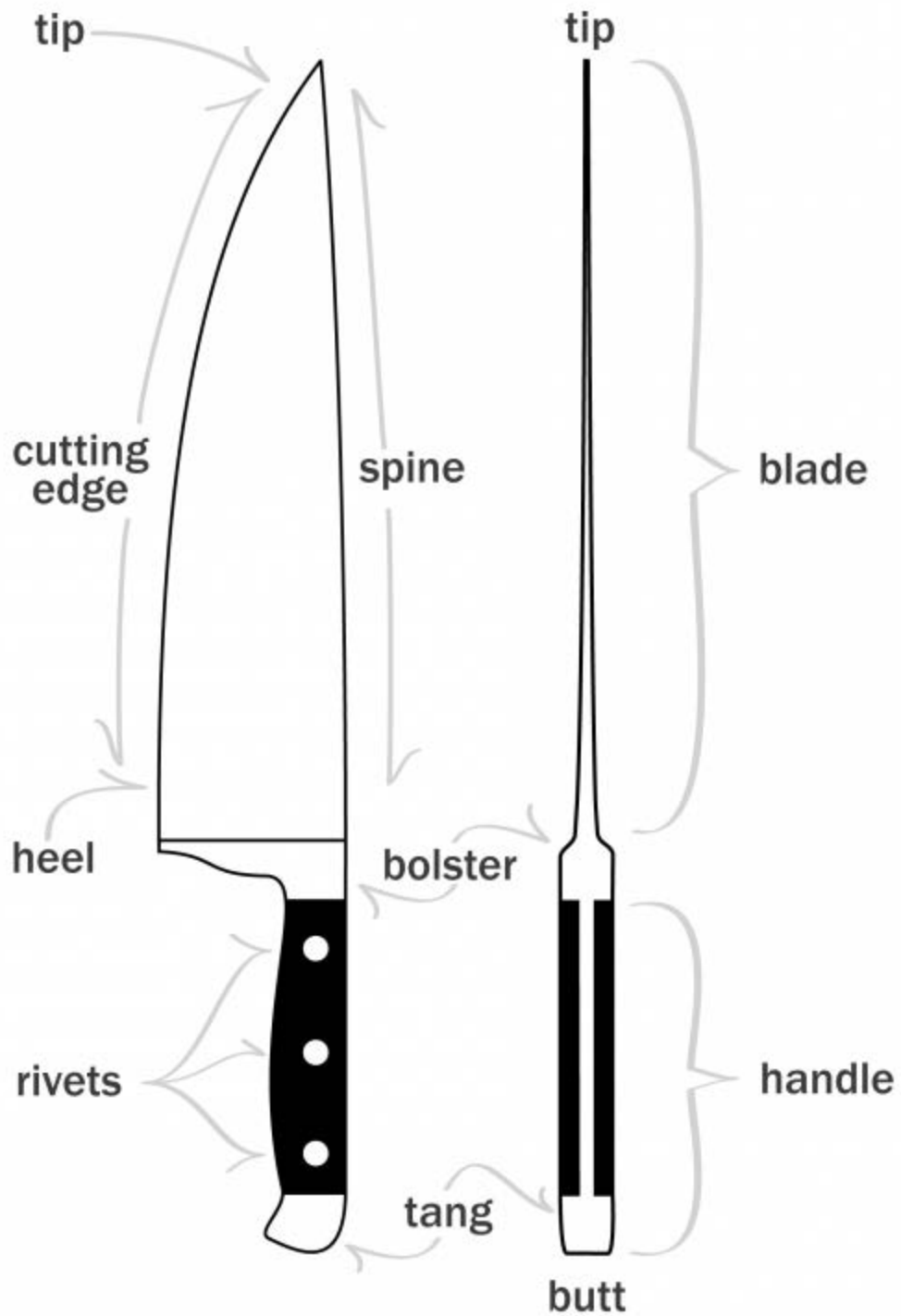
- Ask members if they can relate to a time when someone they know used a knife incorrectly and what happened.
- Ask members to describe how using knives correctly will benefit them in their food project.
- Ask what new concepts members learned.

## Additional Resources:

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-

# anatomy of a knife







## Activity:

---

- If possible, watch “Knife Skills Video” at [www.http://cookingtogethercookingforever.org](http://cookingtogethercookingforever.org) with participants.
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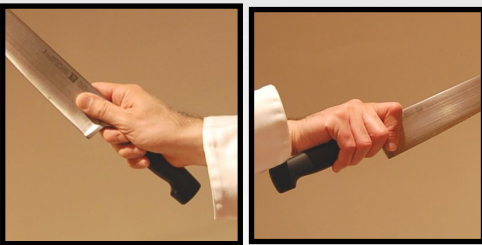
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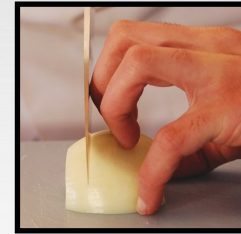
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Holding a Knife Properly



Carry a Knife Correctly



The “Claw” Cutting Method

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## Reflection:

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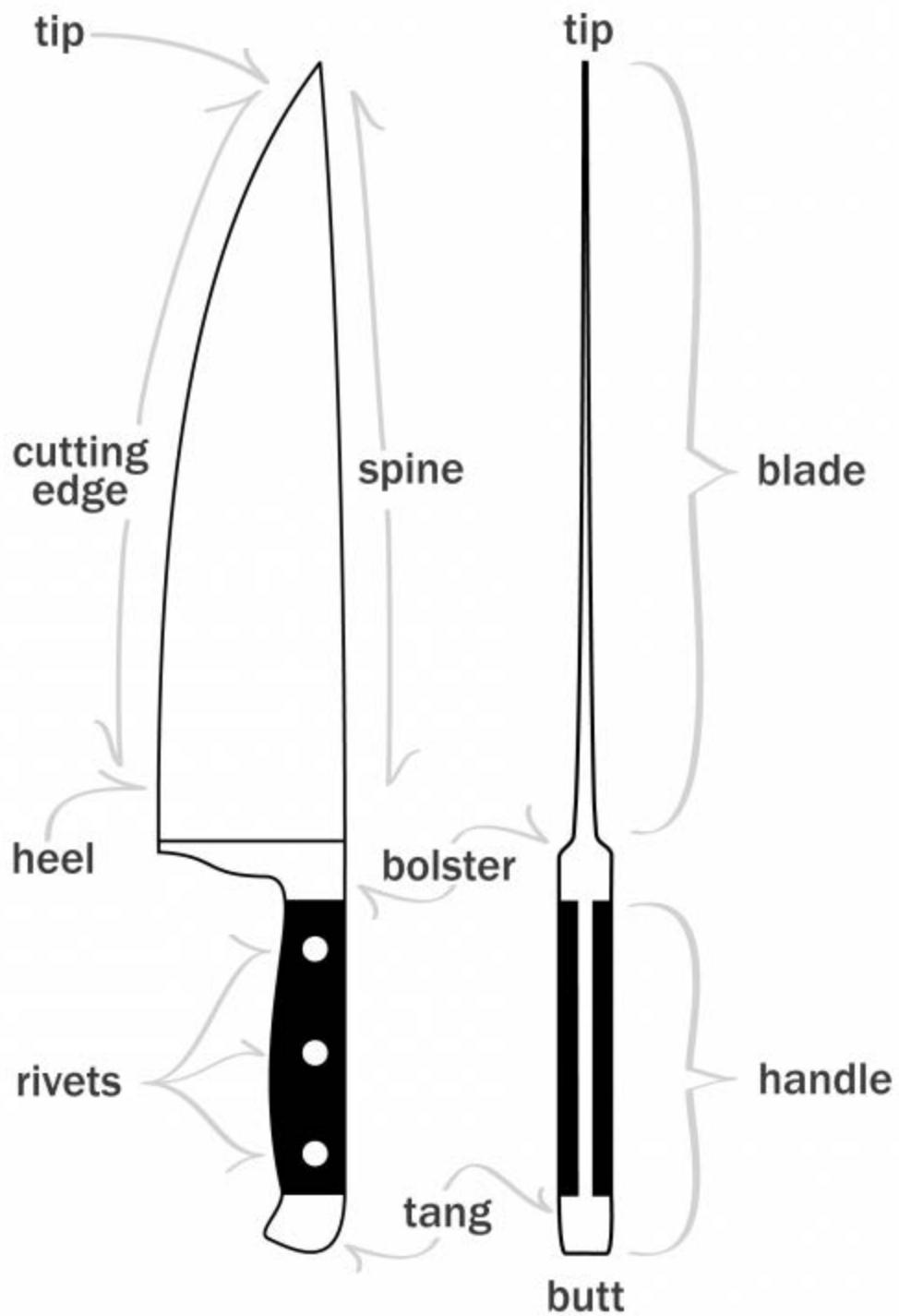
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- Ask members to describe how using knives correctly will benefit them in their food project.
- Ask what new concepts members learned.

## Additional Resources:

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-

# anatomy of a knife





## Activity:

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- The leader will pass out the measuring sets, spoons, and a mixing bowl to participants.
- Next, each individual (or groups) will receive a different ingredient (i.e. one group has flour, another has sugar).
- The leader will then demonstrate how to measure, beginning with 1 cup. After this demonstration each group will be asked to show how to measure their own ingredient using the same cup to the other groups.
- Follow the same procedure with the measuring spoons. Once each group has had a chance to measure with the cups and spoons with their choice ingredient, each could rotate to try a different one. This of course will depend on your time and number of participants.

## Reflection:

---

- What can happen if you use the wrong measuring tool for your ingredient?
- Why is it important to have exact measurements?
- Have you ever tried a recipe and used the wrong measuring cup / spoon? What happened?
- Do you feel confident enough to make your own recipe now that you're familiar with measuring?

## Additional Resources:

---

- See attached worksheet "Kitchen Measurements 1-2-3"
- Below is a great video if you have access to Wi-Fi!

<https://www.pinterest.com/pin/2885187236673434/>

# Measuring



A. Dry Measuring Cups



B. Measuring Spoons



C. Liquid Measuring Cup

What would you use to measure each of the following products?



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



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\_\_\_\_\_



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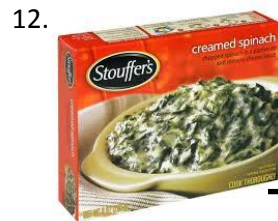
\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

## Measuring Worksheet Answers

1. A

2. B

3. C

4. C

5. A

6. A

7. B

8. B

9. C

10.C

11.C

12.A

13.A

14.B

15.B



## MATERIALS NEEDED

- 4 sets of dry measuring cups
- 4 sets of measuring spoons
- 4 large mixing bowls
- Various grocery items to measure such as flour, sugar, oatmeal, salt

## TIME NEEDED FOR LESSON

20—30 minutes



# Measuring Dry Ingredients

## Learner Objectives:

---

- The 4-H member will learn how to correctly measure dry ingredients.
- The 4-H member will be able to identify each dry measuring cup by name.
- The 4-H member will be able to identify each measuring spoon by name.

## Educational Lesson:

---

*Measuring accurately is probably the most important cooking skill in the kitchen. To begin, make sure that you have actual commercial measuring utensils.*

- **Flour:** Stir flour in the storage container or bag. Using a large spoon, lightly spoon flour from the container into the measuring cup. Do not shake the cup and do not pack the flour. Using the back of a knife or flat blade spatula, level off the flour even with the top edge of the measuring cup. Don't use the measuring cup to scoop the flour out of the container. You can end up with 150% of the correct measurement if you do this!
- **Baking Powder & Baking Soda:** Stir in the container. Using the measuring spoon, lightly scoop out of the container. Use that knife to level off even with the top edge of the measuring spoon.
- **Sugar** is measured by scooping the cup or measuring spoon into the container or bag until it is overflowing, then leveling off with the back of a knife
- **Brown Sugar** needs to be packed into the measuring cup. The sugar should retain the shape of the cup when it is dropped into the other ingredients.
- **Powdered Sugar** usually needs to be sifted to remove small lumps. It is measured by spooning the sugar into the measuring cup from the container, then leveling off with the back of a knife.
- **Dry Ingredients in Spoons**—Ingredients measured in these small amounts still have to be measured carefully. Overfill the measuring spoons and level off using the back of a knife for the most accurate amounts. Accurate amounts of ingredients like baking soda and powder are critical to the success of any baked product.
- **Chopped Ingredients** -Pay close attention to whether or not an ingredient is to be chopped, diced or minced, and whether they are measured before chopping or after. Then the foods are placed in the measuring cup so the top is level with the surface.

*When you bake cookies, cakes, breads, pie crusts, and candies, measuring accurately is really critical to the success of the recipe. When you are cooking casseroles, soups, stir fries, and meats, you can vary amounts more and the end result will still be good.*



## Activity:

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- The leader will pass out the measuring sets, spoons, and a mixing bowl to participants.
- Next, each individual (or groups) will receive a different ingredient (i.e. one group has flour, another has sugar).
- The leader will then demonstrate how to measure, beginning with 1 cup. After this demonstration each group will be asked to show how to measure their own ingredient using the same cup to the other groups.
- Follow the same procedure with the measuring spoons. Once each group has had a chance to measure with the cups and spoons with their choice ingredient, each could rotate to try a different one. This of course will depend on your time and number of participants.

## Reflection:

---

- What can happen if you use the wrong measuring tool for your ingredient?
- Why is it important to have exact measurements?
- Have you ever tried a recipe and used the wrong measuring cup / spoon? What happened?
- Do you feel confident enough to make your own recipe now that you're familiar with measuring?

## Additional Resources:

---

- See attached worksheet "Kitchen Measurements 1-2-3"
- Below is a great video if you have access to Wi-Fi!

<https://www.pinterest.com/pin/2885187236673434/>

# Measuring



A. Dry Measuring Cups



B. Measuring Spoons



C. Liquid Measuring Cup

What would you use to measure each of the following products?



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



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\_\_\_\_\_



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\_\_\_\_\_

## Measuring Worksheet Answers

1. A

2. B

3. C

4. C

5. A

6. A

7. B

8. B

9. C

10.C

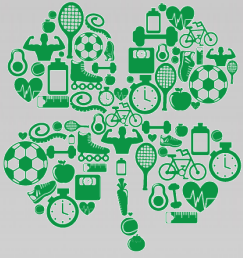
11.C

12.A

13.A

14.B

15.B



## MATERIALS NEEDED

- 4 Liquid measuring Cups
- 4 Large Mixing Bowls
- 4 large bottles of Water
- Food Coloring, four different colors

## TIME NEEDED FOR LESSON

20—30 minutes will be needed for this lesson



## Measuring Liquid Ingredients

### Learner Objectives:

---

- The 4-H member will learn how to correctly measure liquid ingredients.
- The 4-H member will learn how to identify 1 cup, 1/4 cup, & 1/2 cup, utilizing their own measuring cup.
- The 4-H member will be able to identify what types of ingredients should be measured in a liquid measure.

### Educational Lesson:

---

Measuring cups, like this one, are used to measure liquids like water, milk, and oil. It is important to use the correct measuring cup when following a recipe. Be sure to have your measuring cup on a flat surface when pouring in your ingredient or you may accidentally add too much or too little to your recipe. When checking to see if the ingredient is at the desired level, have the measuring cup sitting on a flat, level surface and bend down to view the measurement at eye level. Do not hold the cup up to eye level because the cup may not be level when viewing and it may result in an inaccurate reading.



## Activity:

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### Before Lesson:

Add a few drops of food coloring to bottled water. Each bottle should be a different color if possible.

### Activity:

The leader will pass out a 1 cup liquid measuring cup to each individual or group. Allow time for each group to find the 1 cup mark on their measuring cup. Next, the leader should demonstrate how to correctly measure liquid ingredients. *(To measure correctly, be sure to do it at eye level. This will ensure you have an accurate or close to perfect measurement).*

Next, each individual (or group ) will receive their colored water, ask them to measure 1 cup. Once found, they may pour this water into their mixing bowl and then try another measurement. The colored water should assist in participants easily identifying measurements. It might be fun to have different measurements printed on paper and cut up, and allow someone to draw a measurement each time for the groups to practice!

## Reflection:

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- What types of ingredients should be measured in a liquid measuring cup?
- Why is it important to have a correct measurement?
- Why can't liquid ingredients be measured in a dry measuring cup?

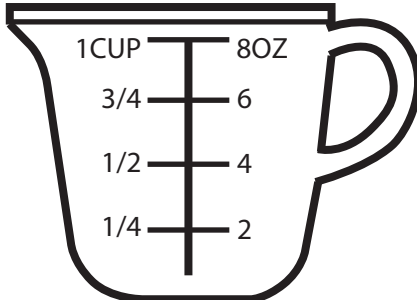
## Additional Resources:

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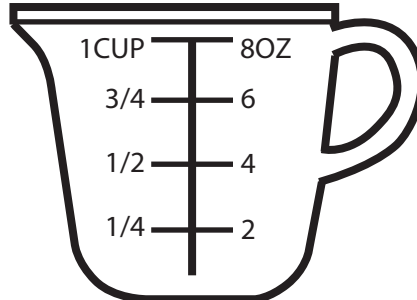
- Measurement worksheet (attached)
- <http://www.stevespanglerscience.com/lab/experiments/seven-layer-density-column>

# MEASURING CUPS

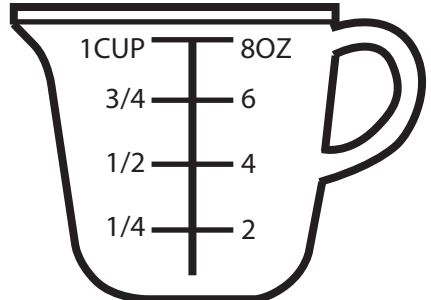
Color the measuring cup up to the indicated amount.



1/2 CUP

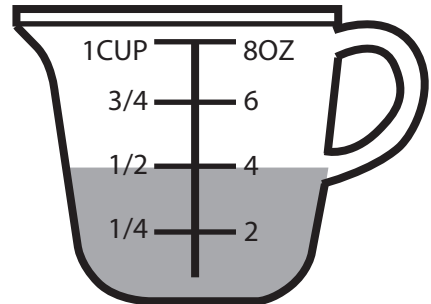
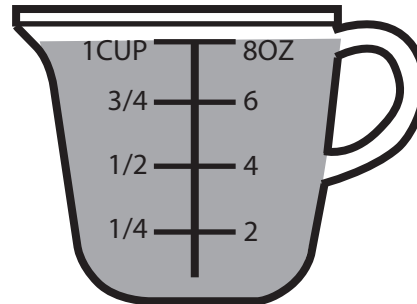
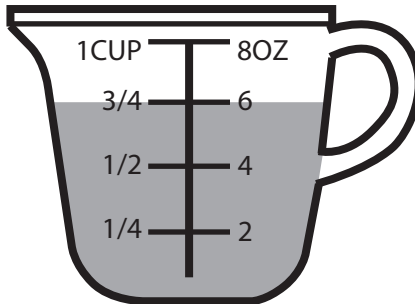


2 OZ.



3/4 CUP

Write down the measurement of each measuring cup in cups and liquid ounces.



\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Using the measuring cups above convert the following:

3/4 CUP = \_\_\_\_\_ OZ.

8 OZ. = \_\_\_\_\_ CUPS

1 CUP = \_\_\_\_\_ OZ.

2 OZ. = \_\_\_\_\_ CUPS

1/4 CUP = \_\_\_\_\_ OZ.

4 OZ. = \_\_\_\_\_ CUPS

# MyPlate

## Learner Objectives:

The 4-H member will:

- Learn the basics of MyPlate.
- Be able to list the 5 different food groups.
- Learn the daily recommendations for each food group.
- Learn how to make a healthy plate.

## Educational Lesson:

### What is MyPlate?

MyPlate was created by First Lady Michelle Obama and the USDA Secretary Tom Vilsack, to “serve as a reminder to help consumers make healthier food choices”. The purpose of MyPlate is to help Americans build healthier diets with resources and tools that detail what should be a part of their everyday meals.

### How to build a healthy plate with the 5 different food groups.

There are 5 different food groups according to MyPlate, this includes: Fruits, Vegetables, Grains, Protein Foods, and Dairy. For healthy meals, make half your plate fruits and vegetables, switch to fat free or low fat milk, make at least half your grains whole grains, and vary your protein food choices (be sure to keep meat and poultry choices small and lean).

### Daily Recommendation of each food group

The daily recommendation of food that one eats depends on your age, sex, and level of activity.

Food Groups	Boys	Girls
Fruits	<ul style="list-style-type: none"> <li>• Ages 9-13: 1.5 cups</li> <li>• Ages 14-18: 2 cups</li> </ul>	<ul style="list-style-type: none"> <li>• Ages 9-18: 1.5 cups</li> </ul>
Vegetables	<ul style="list-style-type: none"> <li>• Ages 9-13: 2.5 cups</li> <li>• Ages 14-18: 3 cups</li> </ul>	<ul style="list-style-type: none"> <li>• Ages 9-13: 2 cups</li> <li>• Ages 14-18: 2.5 cups</li> </ul>
Grains	<ul style="list-style-type: none"> <li>• Ages 9-13: 6 ounce equivalents</li> <li>• Ages 14-18: 8 ounce equivalents</li> </ul>	<ul style="list-style-type: none"> <li>• Ages 9-13: 5 ounce equivalents</li> <li>• Ages 14-18: 6 ounce equivalents</li> </ul>
Protein	<ul style="list-style-type: none"> <li>• Ages 9-13: 5 ounce equivalents</li> <li>• Ages 14-18: 6.5 ounce equivalents</li> </ul>	<ul style="list-style-type: none"> <li>• Ages 9-18: 5 ounce equivalents</li> </ul>
Dairy	<ul style="list-style-type: none"> <li>• Ages 9-18: 3 cups</li> </ul>	<ul style="list-style-type: none"> <li>• Ages 9-18: 3 cups</li> </ul>

What foods fall into each food group? ( For more examples go to [www.choosemyplate.gov/food-groups/](http://www.choosemyplate.gov/food-groups/))

Fruits	Vegetables	Grains	Protein	Dairy
Apples	Corn	Brown rice	Beef	Milk
Grapes	Broccoli	Oatmeal	Chicken	Ice cream
Lemons	Avocado	Corn tortillas	Eggs	Cheese
Papaya	Spinach	Spaghetti	Almonds	Yogurt
Watermelon	Black beans	Popcorn	Fish	Pudding
Kiwi	Mushrooms	Pretzels	Peanut Butter	

## MATERIALS NEEDED

- 3 sets of 3-by-5-inch cards. Sets are designated by common color.
- 3 labeled containers (large brown bags will work fine)

## TIME NEEDED FOR LESSON

About 30-35 minutes.



## Activity: Educational Relay

---

**Preparation:** Prepare a set of cards for each team (three teams with 15 to 20 cards each). Each set of cards should be the same, but there must be a mark that distinguishes the different teams, or three different colored index cards can be used. Each of the cards will have a picture of food (for example: a carrot, an apple, a zucchini, etc), a word can be used instead of a picture as well. Containers must be made, and should be labeled with the 5 food groups that were discussed in the educational lesson. Large brown bags or large bowls will work fine for this activity as long as they are labeled.

### Rules:

1. 3 teams are selected, and the room is cleared to allow running a relay.
2. Each student must start behind a line, pick up a card, run and place it in the correct corresponding food group, and return to tag the next person in line. The next person repeats until all cards are used.
3. The winning team (first to deposit all of their cards in the containers) receives 5 points for best speed; the second team will receive 3 points; and the last team will receive 1 point.
4. The instructor will go to the containers and remove the cards, checking with the group for correct answers. Each correct answer is worth 1 point.
5. The team with the highest point total is the winner.

## Reflection:

---

- How many food groups are there?
- List each food group, and include 5 foods that fall into that category.
- What is the purpose of MyPlate?

## References

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- MyPlate (n.d.). *About Us*. Retrieved on March 5, 2015, from <http://www.choosemyplate.gov/about.html>.
- United States Department of Agriculture (USDA) (n.d.). *How Much Fruit Is Needed Daily?* Retrieved on March 5, 2015, from <http://www.choosemyplate.gov/food-groups/fruits-amount.pdf>.
- USDA (n.d.). *How Many Vegetables Are Needed Daily or Weekly?* Retrieved on March 5, 2015, from <http://www.choosemyplate.gov/food-groups/vegetables-amount.pdf>.
- USDA (n.d.). *How Many Grain Foods Are Needed Daily?* Retrieved on March 5, 2015, from <http://www.choosemyplate.gov/food-groups/grains-amount.pdf>.
- USDA (n.d.). *How Much Food from the Protein Foods Group is Needed Daily?* Retrieved on March 5, 2015, from <http://www.choosemyplate.gov/food-groups/protein-foods-amount.pdf>.
- USDA (n.d.). *How Much Food From the Dairy Group is needed Daily?* Retrieved on March 5, 2015, from <http://www.choosemyplate.gov/food-groups/dairy.html>.
- Gilbert, G. G., Sawyer, R. G., & McNeill, B. (2011). *Methods of instruction/intervention*. Health Education: Creating Strategies for School and Community Health (3rd Ed) (pp. 127-128). Sudbury, Mass: Jones and Bartlett Publishers. Adapted by Abby Melendez (2015)





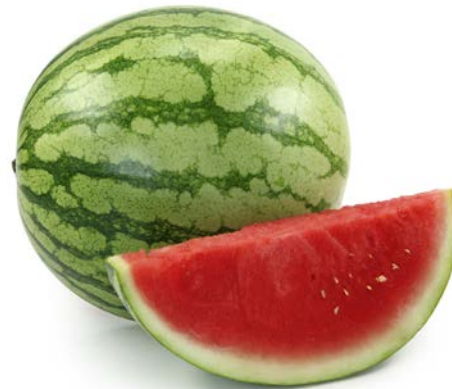
apple



banana



orange



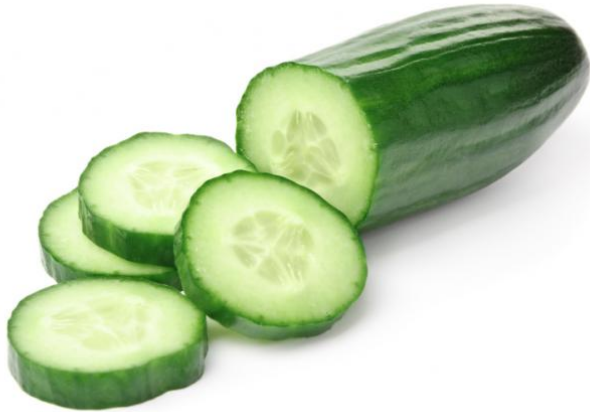
watermelon



carrot



broccoli



cucumber



corn



**brown rice**



**whole wheat bread**



**popcorn**



**pasta**



chicken



eggs



fish



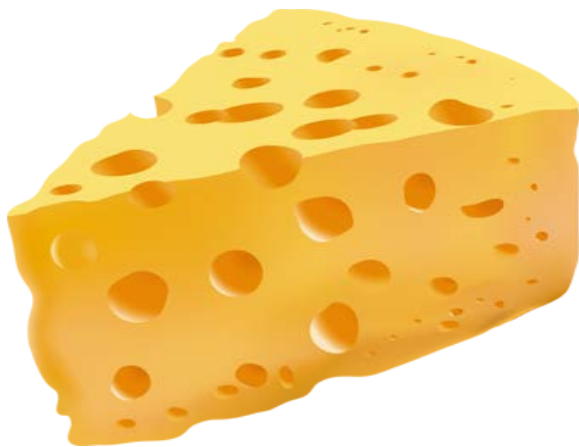
almonds



milk



yogurt



cheese



ice cream





**Apple Corer** — This tool has a circular cutting edge that is forced down into the apple, allowing the apple to remain whole so it can then be easily sliced into sections for eating it out of hand or baking it whole with the outer skin. A tool used to extract the core from the apple without cutting the apple into sections and then individually cutting



**Apple Slicer** — This professional-quality tool is pressed down over the apple to make eight uniform slices and remove the core.



**BBQ Tongs** — A utensil with long handles used to grip and turn food while cooking



**BBQ Spatula** — A utensil with long handle and flat bottom used to turn food while cooking.



**Can Opener, Hand** — A hand held device used for cutting cans open.



**Butter Knife** - A blunt knife used for cutting or spreading butter or other similar spreads.



**Chef's Knife** — A large knife with a wide blade, generally considered all-purpose knives that are used for cutting and dicing.



**Chopper** — A utensil used to cut food into smaller pieces.



**Chopsticks** — A pair of slender sticks made especially of wood or ivory, held between the thumb and fingers and used as an eating utensil in Asian countries and in restaurants serving Asian food.



**Cookie Cutter** — A shaped template with a sharp edge used to cut cookies or biscuits from rolled dough



**Decorative Slicer, Ripple** — A utensil used to cut food that leaves a rippled edge. food.



**Decorative Slicer, Vee** — A utensil used to cut food that leaves a vee shape



**Egg Separator** — A spoon shaped utensil, which has a hole in the bottom and is used to separate the white from the yolk of the egg.



**Egg Slicer** — A kitchen tool with a slatted, egg-shaped hollow on the bottom and a hinged top consisting of 10 fine steel wires. When the upper portion is brought down onto a hard-cooked egg sitting in the base, it cuts the egg into even slices



**Egg Timer** — A small hourglass or clockwork timing device used to time the boiling of an egg, usually capable of timing intervals of three to five minutes



**Flour Sifter** — A utensil used to incorporate air into flour and other dry ingredients.





**Garlic Press** — A press used for extracting juice from garlic



**Grater** — A device with sharp edged holes against which something is rubbed to reduce it to shreds. Used to grate such things as cheese.



**Grill Brush** — A Brush with a long handle on the end that is used to clean a grill



**Gripper** — Small rubbery circle used for opening jars.



**Ice Cream Scoop** — A utensil used to remove ice cream from a carton or other container while forming the ice cream into a ball or oval shape. Ice-cream scoops come in several styles and sizes. Scoops come in many sizes, from tiny to large (about 1 to almost 3 inches in diameter).



**Kitchen Fork** — A utensil used to lift or turn small food.



**Liquid Measuring Cups** — Cups that come in clear plastic or glass with a 1/4" headspace so liquid can be carried without spilling and a pouring spout.



**Measuring Cups** — Cups that are used to measure dry and solid ingredients. They usually come in a set of four nesting cups: 1/4 cup, 1/3 cup, 1/2 cup, and 1 cup



**Measuring Spoons** — Spoons that are used to measure small amounts of dry or liquid ingredients



**Meat Tenderizer** — Hammer or paddle type utensil that comes in metal or wood and in a plethora of sizes and shapes. They can be large or small, have horizontal or vertical handles and be round-, square-, or mallet-shaped. Some have smooth surfaces while others are ridged.



**Melon Baller** — A small bowl-shaped tool used to cut round- or oval-shaped pieces of melon. The best melon ballers are rigidly constructed with wood or metal handles and sharp-edged, stainless steel bowls, which come in several sizes, from about 1/4" to 1"



**Mixing Bowl** — A large bowl made of pottery, glass, metal, or plastic and are used to mix ingredients and come in a variety of sizes.



**Nut Chopper** — A device with blades that chops nuts into small pieces.



**Paring Knife** — A knife that is smaller and shorter with fairly narrow blades, generally used for delicate jobs.



**Pasta Measurer** — A utensil used to measure pasta



**Pasta Server** — A utensil used to serve pasta.



**Pastry Blender** — A mixing utensil used to cut flour and shortening when making pastry and biscuits



**Pastry Brush** — A small type brush used to spread butter or spices over food



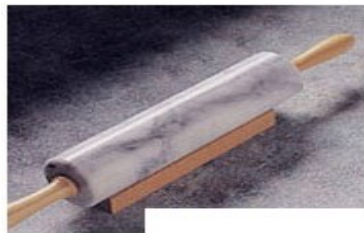
**Pie/Cake Server** — A utensil, which has a triangular, shaped bottom with handle and is used to serve cake or pie.



**Pizza Cutter** — A utensil consisting of a wheel with a sharpened blade used to cut pizza



**Potato Masher** — A tool used to crush food, usually after cooking it, so that it forms a soft mass



**Rolling Pin** — A cylinder that may or may not have small handles at either end used to roll dough for pie crusts, biscuits, or cookies. pizza



**Rubber Spatula** — A flexible utensil used to remove food from spoons, side of bowls, and pans



**Scraper** — A plastic utensil used to scrape food from bowls, etc.



**Serving Fork** — A large type fork used to serve food



**Serving Spoon** — A large type spoon used to serve food



**Slicing Knife** — A knife with long narrow flexible blades that may or may not be serrated



**Soup Spoon** — A spoon with a rounded bowl for eating soup



**Strainer** — A bowl type item with holes in it that is used to separate liquids from solid food.



**Tart Press** — Any type of press used to shape or mold pastry



**Thermometer, Candy** - A candy thermometer, also known as a sugar thermometer, is a thermometer used to measure the temperature and therefore the stage of a cooking sugar solution.



**Meat Thermometer** - A thermometer used to measure the internal temperature of meat, especially roasts and steaks, and other cooked foods. The degree of "doneness" of meat correlates closely with the internal temperature, so that a thermometer reading indicates when it is cooked as desired.



**Tongs** - An instrument with two movable arms that are joined at one end, used for picking up and holding things.



**Turner** — is a kitchen utensil with a long handle and a broad flat edge, used for lifting and turning fried foods, biscuits or cookies.



**Utility Knife** — A knife that has a long and narrow blade that is generally used for cutting



**Vegetable Peeler** — A utensil used to peel the skin from vegetables



**Wire Whisk** — A utensil used to beat and blend ingredients or food, especially egg white mixtures.

## Activity:

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Separate the classroom into two equal teams. Once the students are in their teams, pick two students, one from each team, to go up to the board. You as the instructor will have a few pictures of the utensils that were reviewed in the educational lesson.

When the two students at the board are ready, flash them one of the pictures and the first one to raise their hand and answer correctly will earn a point for their team. Some times you can switch it up and ask them to give you the definition of what the utensil does.

Continue this step until all the students have had their turn or when you run out of pictures.

### OR

Gather up 10-15 utensils (listed in the handout) for the students to identify on their own. Once they are done, go through them as a group and see if they got them correct, and then talk about how each would be used.

## Reflection:

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- List at least 2 reasons why it is important to have specific utensils for certain foods.
- What is a kitchen utensil?
- Name at least 3 utensils and their definitions.

## References:

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- Medline Plus (2015). *Cooking Utensils and Nutrition*. Retrieved on February 26, 2015, from <http://www.nlm.nih.gov/medlineplus/ency/article/002461.htm>.
- 1920-30.com (2012). *Utensils for Cooking: Importance of Utensils*. Retrieved on February 26,2015, from <http://www.1920-30.com/cooking/cooking-utensils.html>.
- Oklahoma State University & New Mexico State University (2014). *4-H FCS Skill-a-thon Foods and Cooking ID*. Adapted by Abigail Melendez (2015).
- Medline Plus (2013). *Cooking utensils and nutrition*. Retrieved on April 9, 2015, from <http://www.nlm.nih.gov/medlineplus/ency/article/002461.htm>
- United States Department of Agriculture (2013). *Cutting Boards and Food Safety*. Retrieved on April 10, 2015, from [http://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/safe-food-handling/cutting-boards-and-food-safety/ct\\_index](http://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/safe-food-handling/cutting-boards-and-food-safety/ct_index).
- National Institute of Allergy and Infectious Diseases (2014). *Understanding Foodborne Diseases*. Retrieved on April 10, 2015, from <http://www.niaid.nih.gov/topics/foodborne/pages/default.aspx>.
- Home Food Safety (n.d.). *Most Common Foodborne Pathogens*. Retrieved on April 10, 2015, from <http://www.homefoodsafety.org/food-poisoning/foodborne-pathogens>.