

5 December Supplemental Activity: Plates and Portions

Nutrition Lesson(s) Supported:

- Portion Distortion

Supplies Needed:

- Plates and Portions Worksheet

Length of Time to Complete:

- 5 minutes to introduce activity
- 30 minutes to complete assignment

Audience (grades): 5th

Common Core Standards Taught:

- Math: Number and Operations i- Fractions: 5.NF.7
 - Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions
 - Interpret division of a whole number by a unit fraction, and compute such quotients.
 - Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions.

Lesson:

This month we talked about portion distortion. Who can tell me what the difference is between a serving size and a portion size? A serving size is a set amount of food, such as 1/3 cup of pasta, whereas a portion is the amount of food you consume in one sitting, such as a bowl of pasta.

Do you remember how plate sizes have grown since the 1960s? (They were 8.5" in the 1960s and are 12" now)

Our plates are now about 40% bigger than they were in the 1960s. Why do you think this would lead to us eating bigger portions? (We put enough food on the plate so it looks full. If we have seconds, the extra portion we put on our plates is bigger too, etc.)

Why is it important to be aware of the portion sizes you are eating? (If we eat extra food and don't balance that with extra exercise, it can lead to obesity and increased risk for diabetes and heart disease.)

Today we're going to complete a worksheet to calculate how this change in plate size has impacted our portion sizes.

Plates and Portions

Using the information on this page and the next, answer the questions on page 3.



8 inch plate:

- ½ cup brown rice
- 1 grilled chicken thigh
- 3/8 of a large apple
- ¾ cup broccoli



10 ¾ inch plate:

- ¾ cup brown rice
- 1 ½ grilled chicken thighs
- 5/8 of a large apple
- 1 ¼ cup broccoli

Brown Rice

Nutrition Facts	
Serving Size 1 cup (195.0 g)	
Amount Per Serving	
Calories 218	Calories from Fat 15
% Daily Value*	
Total Fat 1.6g	2%
Saturated Fat 0.3g	2%
Polyunsaturated Fat 0.6g	
Monounsaturated Fat 0.6g	
Cholesterol 0mg	0%
Sodium 2mg	0%
Total Carbohydrates 45.8g	15%
Dietary Fiber 3.5g	14%
Protein 4.5g	
Vitamin A 0%	Vitamin C 0%
Calcium 2%	Iron 6%

* Based on a [2000 calorie diet](#)

Grilled Chicken Thighs

Nutrition Facts	
Serving Size 1 thigh, bone and skin removed (55.0 g)	
Amount Per Serving	
Calories 107	Calories from Fat 48
% Daily Value*	
Total Fat 5.4g	8%
Saturated Fat 1.5g	7%
Polyunsaturated Fat 1.2g	
Monounsaturated Fat 2.0g	
Cholesterol 50mg	17%
Sodium 41mg	2%
Total Carbohydrates 0.0g	0%
Protein 13.8g	
Vitamin A 1%	Vitamin C 0%
Calcium 1%	Iron 4%

* Based on a [2000 calorie diet](#)

Steamed Broccoli

Nutrition Facts	
Serving Size 1 cup	
Amount Per 1 Serving	
Calories 30	
% Daily Value*	
Total Fat 0.0g	0%
Saturated Fat 0.0g	0%
Trans Fat 0.0g	
Polyunsaturated Fat 0.0g	
MonoUnsaturated Fat 0.0g	
Cholesterol 0.0mg	0%
Sodium 0.0mg	0%
Total Carbohydrates 4.0g	2%
Dietary Fiber 0.0g	0%
Protein 2.0 g	4%

* Based on a [2,000 calorie diet](#).

Large Apple

Nutrition Facts	
Serving Size: 1 large apple / 212g / 3 1/4 inch apple	
Amount per Serving	
Calories 100	Calories from Fat 3.2
% Daily Value*	
Total Fat 0.36g	0%
Saturated Fat 0.06g	0%
Cholesterol 0mg	0%
Sodium 2mg	0%
Total Carbohydrate 29.28g	9%
Dietary Fiber 5.1g	20%
Sugars 22.03g	
Protein 0.55g	1%
Est. Percent of Calories from:	
Fat	2.6%
Carbs	95.6%
Protein	1.8%

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

For each question write an equation and then solve to find the answer. Remember to check serving sizes.

1. How many calories are on the 8 inch plate?

_____Rice calories:

_____Chicken calories:

_____Broccoli calories:

_____Apple calories:

_____ Total calories:

2. How many calories are on the $10\frac{3}{4}$ inch plate?

_____Rice calories:

_____Chicken calories:

_____Broccoli calories:

_____Apple calories:

_____ Total calories:

3. How many more calories are in the food on the $10\frac{3}{4}$ inch plate? (Show equation)

4. Bonus: write this as a mixed fraction using the 8 inch plate as the base.

Platos y Porciones

Usando la información en esta página y la siguiente, contesta las preguntas en página 3.



Plato de 8 pulgadas:

$\frac{1}{2}$ taza de arroz integral

1 muslo de pollo a la parilla

$\frac{3}{8}$ de una manzana grande

$\frac{3}{4}$ taza de brócoli



Plato de 10 $\frac{3}{4}$ pulgadas:

$\frac{3}{4}$ taza de arroz integral

1 $\frac{1}{2}$ muslos de pollo a la parilla

$\frac{5}{8}$ de una manzana grande

1 $\frac{1}{4}$ tazas de brócoli

Arroz Integral

Nutrition Facts	
Serving Size 1 cup (195.0 g)	
Amount Per Serving	
Calories 218	Calories from Fat 15
% Daily Value*	
Total Fat 1.6g	2%
Saturated Fat 0.3g	2%
Polyunsaturated Fat 0.6g	
Monounsaturated Fat 0.6g	
Cholesterol 0mg	0%
Sodium 2mg	0%
Total Carbohydrates 45.8g	15%
Dietary Fiber 3.5g	14%
Protein 4.5g	
Vitamin A 0%	Vitamin C 0%
Calcium 2%	Iron 6%

* Based on a [2000 calorie diet](#)

Muslos de Pollo a la Parilla

Nutrition Facts	
Serving Size 1 thigh, bone and skin removed (55.0 g)	
Amount Per Serving	
Calories 107	Calories from Fat 48
% Daily Value*	
Total Fat 5.4g	8%
Saturated Fat 1.5g	7%
Polyunsaturated Fat 1.2g	
Monounsaturated Fat 2.0g	
Cholesterol 50mg	17%
Sodium 41mg	2%
Total Carbohydrates 0.0g	0%
Protein 13.8g	
Vitamin A 1%	Vitamin C 0%
Calcium 1%	Iron 4%

* Based on a [2000 calorie diet](#)

Brócoli a Vapor

Nutrition Facts	
Serving Size 1 cup	
Amount Per 1 Serving	
Calories 30	
% Daily Value*	
Total Fat 0.0g	0%
Saturated Fat 0.0g	0%
Trans Fat 0.0g	
Polyunsaturated Fat 0.0g	
MonoUnsaturated Fat 0.0g	
Cholesterol 0.0mg	0%
Sodium 0.0mg	0%
Total Carbohydrates 4.0g	2%
Dietary Fiber 0.0g	0%
Protein 2.0 g	4%

* Based on a [2,000 calorie diet](#).

Manzana Grande

Nutrition Facts	
Serving Size: 1 large apple / 212g / 3 1/4 inch apple	
Amount per Serving	
Calories 100	Calories from Fat 3.2
% Daily Value*	
Total Fat 0.36g	0%
Saturated Fat 0.06g	0%
Cholesterol 0mg	0%
Sodium 2mg	0%
Total Carbohydrate 29.28g	9%
Dietary Fiber 5.1g	20%
Sugars 22.03g	
Protein 0.55g	1%
Est. Percent of Calories from:	
Fat	2.6%
Carbs	95.6%
Protein	1.8%

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

Para cada pregunta escribe una ecuación y resuélvela. Acuérdate de chequear los tamaños de las porciones.

1. ¿Cuántas calorías hay en el plato de 8 pulgadas?

_____ Calorías del arroz:

_____ Calorías del pollo:

_____ Calorías del brócoli:

_____ Calorías de la manzana:

_____ Calorías en total:

2. ¿Cuántas calorías hay en el plato de $10\frac{3}{4}$ pulgadas?

_____ Calorías del arroz:

_____ Calorías del pollo:

_____ Calorías del brócoli:

_____ Calorías de la manzana:

_____ Calorías en total:

**3. ¿Cuántas más calorías hay en la comida en el plato de $10\frac{3}{4}$ pulgadas?
(Muestra la ecuación)**

4. Bono: escribe esto como un número mixto usando el plato de 8 pulgadas por el base.