



How Much?

Lesson

Goals

To introduce students to the importance of portion control by reading nutrition labels and measuring portions.

Objectives

Students investigate serving sizes on nutrition labels, measure amounts of food based on serving sizes and calculate nutrition information based on serving sizes. Students will also determine how much exercise is needed to burn off a set amount of calories consumed.

Standards

Science: Life Science

GR.5-S.2-GLE.2

Comprehensive Health: Physical & Personal Wellness

GR.2-S.2-GLE.1

GR.3-S.2-GLE.1

GR.4-S.2-GLE.1

GR.5-S.2-GLE.1

GR.6-S.2-GLE.4

Total Time – 60 minutes

Materials

- Box of cereal
- Variety of sizes of bowls
- Measuring cup
- Handouts (end of lesson)
- Journals

Method

Introduction (5 minutes)

1. Begin the class with a review of the nutrition label or other nutrition topics you may have covered. Reiterate how important it is to look at the ingredient list and focus on eating whole grains and limiting sugars and fats. Point out the serving size section of the nutrition label and discuss that in addition to WHAT you eat, you have to also be aware of HOW MUCH you eat.
2. Remind the class that calories are like fuel, but if we consume too many we begin to gain weight. To prevent this from happening we need to burn off the calories with exercise.

Activity (25 minutes)

1. Set up a table in the front of the room with a box of cereal and a variety of different sizes of bowls.

Did you know?

Obesity is among the most serious threats to Americans' health, with rates of obese and overweight children tripling since the 1960s. The main cause is too many calories consumed and not enough burned off. The solution: eating less and exercising more.

2. Describe a situation: "You just rode your bike home from school and you go into the kitchen to get a snack. You see a box of cereal and grab a bowl and pour yourself some cereal."
3. Have a volunteer from the class come up and pick a bowl and pour how cereal he/she would realistically eat. Have two more volunteers come up and do the same.
4. Now measure out each student's cereal. Compare to the serving size on the cereal box. Have the class calculate how many calories, sugar, fat, etc. based on how much cereal was poured by each student.
5. Write the amount of calories that were consumed by the largest serving on the board.
6. Have the class do jumping jacks for one minute. Tell them that they burned about 3 calories. Have them jump for another minute. How many calories have they consumed now? Have the class calculate how long they would have to jump to burn off all of the calories consumed by the largest serving of cereal.
7. Write the Order Size Guide (end of lesson) on the board with blanks for actual categories. Have students work in groups to estimate how many calories each item contains for a small and large serving.
8. Then display the actual calories. Discuss with the class what their estimates were and why the actual calories may differ from their estimates. Remind the class that they should be consuming between 1800 and 2000 calories per day.
9. Have the students calculate how many minutes you would need to do jumping jacks to burn off a small meal versus a large meal.
10. Handout the Portion Size Guide and review with the class.

Snack & Conclusion (20 minutes)

1. Have the class journal or discuss why it is important to look at serving sizes. Ask the class to brainstorm some strategies to help them with portion control (use smaller plates and cups, read nutrition labels, order small, avoid supersize, share large entrees, avoid eating directly out of the bag or container, avoid eating while watching TV, etc).
2. Have the students prepare their California Wraps or another healthy snack. Discuss the benefits of the various ingredients.

Assessment Tools

- Participation
- Math
- Journals

Possible Modifications and Extensions

- Feel free to do this activity with other types of food (e.g. chips, Cheetos, juice).
- Do the math of how many minutes of jumping jacks you need for other items, such as their lunch or breakfast that day.

Order Size Guide

The difference between a small meal and large (supersized) meal could easily double the amount of calories.

	LARGE	SMALL
French Fries	570	250
Burger	730	260
Soda	310	150
Cookie	470	110
Ice Cream	560	230
Totals	2640	1000

California Wrap

- Cheddar cheese, grated
- Whole wheat flour tortillas
- Carrots, shredded
- Red or yellow bell peppers, sliced thinly
- Avocados, peeled and sliced
- Baby spinach leaves
- Salsa

Preparation (10 minutes): Spread the avocado over the tortilla within ½” of the edges. Arrange all the filling ingredients in a row along the center of the tortilla. Roll the tortilla up as tightly as possible to enclose the filling without tearing the tortilla.

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Hand Symbol	Equivalent	Foods	Calories
	Fist 1 cup	Rice, pasta Fruit Veggies	200 75 40
	Palm 3 ounces	Meat Fish Poultry	160 160 160
	Handful 1 ounce	Nuts Raisins	170 85
	2 Handfuls 1 ounce	Chips Popcorn Pretzels	150 120 100
	Thumb 1 ounce	Peanut butter Hard cheese	170 100
	Thumb tip 1 teaspoon	Cooking oil Mayonnaise, butter Sugar	40 35 15