



Calories and Portion Sizes Around the World

Overview:

Students will learn what calories are and how both (1) the number of calories they consume and (2) the portion size affect their weight and health. Students will analyze the differences in food consumption (i.e., calories consumed and portion size) between developed (e.g., the United States) and developing countries (e.g., Somalia).

Objectives:

At the end of the lesson students will be able to:

- 🐝 Explain the statement “the high cost of ‘cheap’ food” (i.e., most “cheap food” is not healthful food).
- 🐝 Describe the difference between developed and developing countries.
- 🐝 Explain why people in different countries eat different kinds of foods and different portions of foods.
- 🐝 Hypothesize what other factors (besides a country’s economy) might influence peoples’ variation in calorie and portion consumption (e.g., advertisements, governmental food policies, culture).
- 🐝 Research portion sizes of foods grown in the garden and create a snack using appropriate portion sizes.

Preparation:

- 🍓 Write the following discussion questions on the board:
 - In what ways can we reduce the calories and portions of food we eat?
 - What makes it easy or difficult to do this?
 - What are some of the reasons we in the U.S. eat the kinds of food and portions of food that we do?

Materials:

- Projector to show the following websites:
 - “What the World Eats”: <http://www.nationalgeographic.com/what-the-world-eats/>
 - “MyPlate Plan”: <https://www.choosemyplate.gov/MyPlatePlan>

On the Board:

- Vocabulary
- Discussion Questions
- Student Reflection Questions

Suggested Snack:

- Cheese sticks
- Whole wheat crackers

Vocabulary:

-  portion size
-  calorie
-  developed country
-  developing country

-  diet
-  cheap, fast, and processed food
-  standard of living

Learning Activities:

1. Presentation (10 min.)
 - A. Tell students that today they will take a critical look at the average amount of calories and average portion sizes that Americans eat daily. They will compare these findings with those of people in a few countries that have a lower “standard of living.”
 - B. Define vocabulary words:
 - *standard of living*: the degree of wealth and material comfort available to a person, community, or country
 - *developed and developing countries*: the United Nations defines whether or not a country is developed or developing based on economic status, average family income, level of industrialization, standard of living, etc.
 - *portion size*: the amount of a particular food a person eats
 - *calorie*: a unit of measurement that measures energy (Our bodies need a certain amount of energy every day to function well. We can become aware of our daily nutrient intake by monitoring the calories in, and portions of, the food we eat.)
 - *diet*: the typical foods that a country, population, or culture eats on a regular basis
 - *cheap foods*: food that does not cost much (These are often processed or “fast” foods. Not all processed foods – pre-chopped, frozen, canned, packaged – are unhealthy, but they often contain excessive amounts of salt, saturated and trans fats, and sugar.)
 - C. Project (or hand out copies of one or more pages from) the National Geographic’s website “What the World Eats.”
 - D. Explore the website with students, having them note the differences in calories consumed and portion sizes among different countries.
 - E. Lead a discussion comparing the calories and portions consumed in the US and in Somalia (or some other developing country). Ask students: In what ways do you think these different eating practices affect the health of the residents in each country?
2. Classroom Activity: Calculating Calories (10 min.)

- A. Tell students that based on their age, weight, height, and activity level, they can go online to get an estimate of how many calories they should consume daily.
 - A. Project the website “MyPlate Plan” on the board.
 - B. Enter the necessary information to find out the recommended calorie intake for a middle-school age teenager (male and female).
 - C. Tell students that both the number of calories we consume and the size of portions affect our weight and health.
 - It is important to note that when we buy “fast food” the servings are two to three times larger than they were in the 1980’s, and the portions of prepackaged and restaurant foods have increased significantly since the 1970’s. This increase in portion size is one of the reasons more and more Americans are overweight and obese. Ask them why they think these portions have increased?
3. Discussion (10 min.)
 - A. Break the class into elbow partners or small groups to discuss the questions written on the board.
 - B. Have the students report back their answers from their small groups.
 - C. Conclude by telling students that people living in poverty have the least amount of food choices; the more money a family makes generally means the more options they have.
4. Snack: Serve cheese sticks and crackers. These are items notorious for having portion sizes smaller than you would expect. (5 min.)
 - A. Have students divide up a box of crackers amongst themselves, using the indicated serving size and give each student one cheese stick.
 - B. Ask students: If you were eating this at home, do you think you would eat more crackers than the allowed serving and more than one cheese stick?
5. Have students answer the Reflection Questions in their garden journals. (5 min.)

Student Reflection Questions:

1. Do you think you need to decrease your calories and/or average portion size? If yes, in what ways can you do this?
2. If you think you cannot reduce your calorie intake or average portion size, what are the reasons for this?
3. Why do you think people living in poverty have less food choices?

Assessment Questions:

1. What are some of the reasons people in developed countries have more food choices than those living in developing countries?
 - In developed countries, there are more processed foods, a large agricultural industry, advanced food transportation systems and a large selection of ways to purchase food.
2. In what ways do you think people living in developing countries may have healthier food choices than those living in developed countries?
 - They have less processed foods.

Standards:

Common Core State Standards

Craft and Structure:

- CCSS.ELA-LITERACY.RST.6-8.4

Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6-8 texts and topics.

Key Ideas and Details:

- CCSS.ELA-LITERACY.RST.6-8.2

Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

- CCSS.ELA-LITERACY.RST.6-8.8

Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.