

What's for Lunch?

Overview: In this activity students will have a chance to compare their lunch menus with menus from the past to identify the similarities and differences between foods consumed then and the foods we eat today.

Grade Level/Range: 6th – 12th Grade

Objective: Students will:

- Learn about the history of nutrition and food preparation by referencing historical documents.
- Gain knowledge about the recommended components of our diets.

Time: 1 hour

Materials:

- School lunch menu worksheets



Background Information

The search for nourishing food is as old as the existence of people on this planet. Humans need food to survive — and not just any food will do. Our bodies require a certain combination of nutrients (proteins, fats, carbohydrates, water, minerals, and vitamins) to function properly.

In prehistoric times, the knowledge of what to eat was likely discovered through a process of trial and error. People would try plant and animal products gathered through scavenging and hunting. They would evaluate each item's usefulness as food on its taste and their body's reaction to it. Items that caused nausea or vomiting (or in the worst-case scenarios, death) were eliminated as options. People would pass down information about food sources (along with what to avoid) to their children, so nutritional knowledge would expand with each generation.

The earliest written accounts of nutritional beliefs are found on ancient Babylonian and Egyptian tablets. Greek and Roman records also contain information on food and diet recommendations. People recognized the health benefits of consuming certain foods through experience and observation. They did not necessarily know the reasons why those foods were beneficial. For example, archeologists discovered an Egyptian papyrus from 1500 B.C. that recommended eating roasted ox liver to reduce night blindness. It was not until the 1900s that scientists discovered Vitamin A, the component of liver that contributes to good eyesight.

People also began to recognize the link between food consumed and common diseases. The explorers of the 1700s discovered that consumption of fresh fruits and vegetables prevented and cured scurvy,

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a disease we now know is caused by a deficiency of Vitamin C. Scurvy was a common problem on ships that spent long stretches at sea where fresh foods were lacking. As a result of these early observations, the British Navy began to supply lime juice to its sailors, hence the nickname “limeys.” It was not until the 1900s that scientists discovered Vitamin C and recognized its importance in the prevention of scurvy.

The Origins of Dietary Guidelines

Through 20th century advances in science, especially in the field of chemistry, scientists developed the skills needed to identify and measure specific nutrients in food. With this increased knowledge, nutritionists developed sophisticated dietary guidelines and recommendations. A groundbreaking publication by Dr. W.O. Atwater in 1894, titled “Foods: Nutritive Value and Cost,” opened the door for a new way of thinking about food in America. Dr. Atwater’s publication used a science-based approach, recognizing that humans need a measurable amount of nutrients (he recognized that different people have different needs based on age, sex, weight, and lifestyle), and foods contain a measurable amount of nutrients. Thus, he concluded that a healthful diet is found by balancing the two along with finding the most cost-efficient sources. Dr. Atwater measured these nutrients in calories. Although specific vitamins had not yet been discovered, he divided the nutritional components of food into proteins, fats, carbohydrates, and mineral matters and made recommendations of how many calories of each component people need for good health.

Building on his work, nutritionists began to develop more specific guidelines for Americans to use in planning their diets. Using knowledge about the nutrients contained in foods, nutritionists divided foods into groups. They then applied knowledge of what the body needs to create guides for eating – recommending a certain number of foods from each group per day.

Although these guidelines have evolved through the years, their goals were the same — to translate scientifically-based nutritional information into an easy-to-understand format that would enable people in America to make good dietary choices, and ultimately improve the overall health of our society. Check out the Historical Food Guide Chart below to see the evolution of dietary recommendations. For more information and graphics, visit the Historical Dietary Guidance Digital Collection:

https://naldc.nal.usda.gov/historical_dietary_guidance_digital

Nutrition Today

The latest food guide in the United States is “MyPlate,” released by the United States Department of Agriculture in 2011 and available at myplate.gov. Every 5 years, the USDA reviews and revises its recommendations to reflect the latest scientific research and nutritional education philosophies, and this information is published in a report titled “Dietary Guidelines for Americans.” The report is then translated into a format that is easy to share out.

“MyPlate” is a visual guide to help individuals understand the ratios of foods they need to consume in these categories: fruits, vegetables, grains, proteins, and dairy. The amount of food needed from each group varies based on age, gender, and physical activity levels.

Explore myplate.gov for more information and to access additional educational support materials.

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Laying the Groundwork

Ask students to think about how the food service employees at their school decide what to serve for lunch every day. What kind of things do they have to consider? How foods taste? What kind of nutrients they have? How much ingredients cost? If possible, invite your food service manager to your class to explain their process for planning lunch meals (and breakfast, if applicable).

Exploration

1. Introduce students to MyPlate and explore what the USDA recommends we eat every day.
2. For a little history fun, have students compare their lunch menus with menus from 1916 to identify the similarities and differences between foods consumed then and the foods we eat today. Begin by asking students to keep a food journal of their lunch meals for a week using the School Lunch Food Journal. Instruct them to indicate the MyPlate category for each item.
3. At the end of the week, give them a copy of the School Lunch Menu from 1916. Ask them to analyze how each of these foods fit into the MyPlate categories, and then answer the questions on the School Lunch – Past and Present Worksheet to compare the two charts. Discuss the findings as a class.

Making Connections

Link meal planning to your garden program. Discuss which parts of our diet can be grown in a garden. You can expand it out to identify all the components that come from plant ingredients. Finally, expand out further to discuss all the components that rely on plants (such as milk from cows that eat hay).

Branching Out

Other fun historical documents include cookbooks. During the 18th and 19th centuries, cookbooks became more common. In 1796, the first cookbook written by an American and printed in the United States was published, titled *American Cookery* by Amelia Simmons. Visit the “[Feeding America Project](#)” with your class to view a collection of 76 historic American cookbooks. A brief history of cookbooks and links to the collection can be found at: <https://d.lib.msu.edu/fa/introduction/>.

As you look through the historic cookbooks, you will notice many differences from today’s cookbooks. Read a recipe to the students and ask them if they have the tools to make that recipe. One of the biggest differences is how we measure ingredients. Depending on the availability of measuring tools, ingredients in the past may have been measured by weight (ounces, pounds), standard sizes (pints, cups, teaspoons), or through approximate sizes (a pinch, a handful). Standard measuring tools were especially scarce for early settlers and frontier travelers.

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School Lunch Food Journal

Name: _____

Dates of Record: _____

Day	Food Served	# of servings of				
		Grains	Vegetables	Fruits	Dairy	Protein
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Totals for Week						

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School Lunch Menus from 1916*

Day	Food Served	# of servings of				
		Grains	Vegetables	Fruits	Dairy	Protein
Monday	<ul style="list-style-type: none"> - Slice of meat or bean loaf - Bread and butter sandwich - Stewed fruit - Small frosted cake 					
Tuesday	<ul style="list-style-type: none"> - Dried codfish chowder - Crackers - Fruit - Maple-sugar sandwich 					
Wednesday	<ul style="list-style-type: none"> - Baked bean and lettuce sandwich - Apple sauce - Sweet chocolate 					
Thursday	<ul style="list-style-type: none"> - Meat and vegetable stew - Bread and butter - Cookies 					
Friday	<ul style="list-style-type: none"> - Hard-boiled eggs - Crisp baking powder biscuit - Celery or radishes - Brown sugar sandwich 					
Totals for Week						

*Menus from "School Lunches." Farmers' Bulletin #712. United States Department of Agriculture. 1916.

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School Lunch – Past and Present Worksheet

1. Are school lunch menus the same as they were in 1916?
2. What are some of the differences between the menus today and in 1916?
3. What are some of the food items from 1916 that we still eat today?
4. Did you notice any differences between your lunch and lunch in 1916 in the amount of:
 - Grains eaten
 - Vegetables eaten
 - Fruits eaten
 - Dairy products eaten
 - Protein products eaten
5. Did you eat food from each of the food categories every day?
6. Did you eat food from each of the food categories over the course of the week?
7. Based on the information from “MyPlate,” do you think you need to make any changes in your lunch menus? If so, what changes do you want to make?

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Historical Food Guide Chart ~ Food Guides from the USDA*

For more information and graphics, visit the Historical Dietary Guidance Digital Collection:

https://naldcnal.usda.gov/historical_dietary_guidance_digital

Food Guide	Number of Food Groups	Protein-Rich Foods					Breads	Fruits and Vegetables				Other				
1916 - Food for Young Children	5	Group Names	Meats and Other Protein-Rich Food			Cereals and Other Starchy Foods			Vegetables and fruit				Fatty Foods	Sugars		
	# of Servings	1 milk + 2-3 others					9	5				9	10			
	Serving Size	3 oz., 1 C					1 oz or ¾ C	8 oz				1 Tbsp	1 Tbsp			
1930's - Planning for Good Nutrition	12	Group Names	Milk	Meat, Poultry, Fish	Dry Beans, Peas and Nuts	Eggs	Flours, Cereals	Leafy Green, Yellow	Potatoes, Sweet Potatoes	Other Vegetables and Fruits	Tomatoes and Citrus	Butter	Other Fats	Sugars		
			# of Servings	2 C	9-10/week	1/week	1	As desired	11-12/week	1	3	1	-	-	-	
1940's - Basic Seven Foundation Diet	7	Group Names	Milk and Milk Products		Meat, Poultry, Fish, Eggs, Dried Beans, Peas, Nuts		Bread, Flour, and Cereals	Leafy Green, Yellow	Potatoes and Other Fruit and Vegetables		Citrus, Tomato, Cabbage, Salad Greens	Butter-fortified, margarine				
															# of Servings	2 cups or more
1941 - Eating the Right Food to Help Keep You Fit	10	Group Names	Milk	Eggs	Meat	Cereal-Bread	Leafy Green, Yellow	Other Vegetable and Fruits	Citrus, Tomato, Cabbage	Fats	Sweets	Water				
			# of Servings	2 C or more	1 or at least 3-4/week	1 or more	At least 2 whole grain or enriched	1 or more	2 or more	1 or more	use every day	in moderation	6 + glasses			
1941 - A Yardstick for Good Nutrition	9	Group Names	Milk	Egg	Meat	Cereal-Bread	Vegetable	Potato	Fruit	Butter-Fortified Oleo		Sugar-Fat				
			# of Servings	2 C	3-4/week	1 (3 oz)	At least half of intake	2, at least 1 green or yellow	1 or more	2, at least one citrus or tomato	100-500 cal	to complete calories				
1941 - A Guide to Good	7	Group Names	Milk	Eggs	Meat, Cheese, Legumes	Cereal-Bread	Vegetables	Fruit		Butter						

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