



STEAM & Sports

Lesson 1 - Cookbook

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Exploring Local Cuisine

Concept

This lesson guides students through exploring the local cuisine connected to their region. The goal is to understand how geographical and cultural factors influence nutrition and how to select nutritionally valuable ingredients. Students will:

- (Geography) explore the geographical characteristics of their region and how they affect the availability of certain ingredients.

- (Biology) analyze which ingredients naturally grow or are cultivated in their area and research their nutritional values.
- (History) investigate historical circumstances that led to the use of specific ingredients in local cuisine.
- (Computer Science) use online encyclopedias and educational websites to research reliable information about local ingredients and their historical and nutritional significance.
- (Chemistry) examine the chemical composition of selected ingredients, including macronutrients (proteins, fats, carbohydrates) and micronutrients (vitamins, minerals), as well as how different cooking methods affect their structure and nutritional value.

This interdisciplinary activity will allow students to view nutrition from different perspectives and gain a deeper understanding of the connection between food, environment, culture, and science while developing their digital research skills.

Learning objectives and Outcomes

1. Identify local ingredients and understand their cultural and geographical significance.
2. Evaluate whether these ingredients are nutritionally valuable and beneficial for a healthy diet. After this lesson, students will be able to:
 - a. 1. Explore local dietary habits and typical ingredients
 - b. 2. Understand the connection between nutrition, geography, and tradition
3. Analyze the nutritional values of traditional ingredients
4. Use digital tools for data collection and processing



Methodology

1. Teamwork
2. Online research and the use of digital encyclopedias
3. Critical analysis of dietary habits
4. Presentation of researched information

Educational standards in connection with sports

Balanced diet: Understanding proper macronutrient and micronutrient intake for physical performance.

Hydration: Recognizing the importance of water before, during and after exercise.

Avoiding harmful habits: Reflecting on the risks of excessive consumption of processed foods or sugary drinks

This lesson includes elements of these school subjects

1. Geography
2. Biology
3. History
4. Computer Science
5. Chemistry
6. Physical Education

Timeframe

45 min – one school lesson

Students Age

10-15 years

Material needed

1. Computers or tablets with internet access
2. Printed worksheets (optional)
3. Research materials (encyclopedias, books, etc.)

Short description of the content

Students will explore how local geography and culture influence cuisine, research traditional ingredients and their nutritional value, and present their findings using digital tools

Sequence of Lesson

Engage (5 min):

- Start with an open discussion where students share their favorite local dishes.
- Ask guiding questions such as:
 - Why do you think certain foods are popular in our region?
 - How do geography and climate influence the ingredients used in our cuisine?
 - Do you think the way food is prepared has changed over time?
- Encourage students to make connections between food, culture, and history.

Explore (20 min):

- Divide students into small groups and assign each group a specific aspect to research:
 - Geography: How do the natural resources and climate of the region affect food production?
 - Biology: What are the most common locally grown ingredients, and what are their nutritional benefits?
 - History: What historical events or cultural influences shaped the local diet?
 - Computer Science: How can we use digital tools to research and verify information about food?
 - Chemistry: What are the key nutrients found in traditional ingredients, and how do different cooking methods impact their nutritional value?
- Students use digital encyclopedias, educational websites, and other reliable sources to gather information.
- Each group takes notes and prepares key points to present to the class.



Elaborate (10 min):

- Each team presents their research findings in a structured format.
- Encourage them to include examples, fun facts, and surprising discoveries.
- Facilitate a discussion where students compare their findings and identify connections between different subjects. Evaluate (5 min):
- Ask students to reflect on their research process:
 - Did they learn anything new about their local cuisine?
 - How has their understanding of food changed after looking at it from different perspectives
 - Why is it important to analyze food from a scientific and cultural standpoint?
- Have students share their thoughts in a short discussion or by writing a quick reflection. Extend (5 min):
- Introduce a brief discussion on food chemistry:
 - How do cooking methods (boiling, frying, steaming) affect the nutritional value of ingredients?
 - Are there traditional cooking methods that help preserve nutrients?
- If time allows, show a short video or demonstration of how heat changes the chemical structure of food.

Lesson Developer

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Tips for age group differentiation (for older/younger kids than indicated in the lesson)

For younger students (under 10 years): Use simpler language and more visual materials (pictures, food models). Include games and hands-on activities (e.g., assembling plates with colorful foods). Shorten task duration and allow for more frequent breaks. For older students (over 15 years): Include deeper analysis (e.g., the impact of nutrition on sports performance, reading food labels). Encourage independent research and presentations. Introduce topics such as sustainable nutrition and the environmental impact of food choices.

To which SDG(s) does the lesson relate most



SDG 2: Zero Hunger – The lesson aims to develop knowledge about balanced nutrition, the importance of local ingredients, and the prevention of malnutrition or obesity.



SDG 3: Good Health and Well-being – The lesson promotes healthy lifestyle habits, proper nutrition, and hydration, contributing to students' overall health and well-being.

What Inclusivity and Accessibility measures can or should the teacher take for this lesson

Material adaptation: Use large images, clear and simple instructions, high-contrast colors, and bold fonts on worksheets. Flexibility in delivery: Allow students to respond orally or in writing, use gestures and non-verbal cues for communication. Physical accessibility: Ensure all students can physically access the classroom and materials (e.g., tables adapted for wheelchairs). Additional support: Allow extra time for tasks, use assistive technologies (tablets, digital tools), collaborate with parents and specialists for students with special needs. Respect for dietary needs: Adapt recipes and activities for students with allergies, intolerances, or special diets.

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