A Bite of Future

SMaiLE Project

Key Information

Target Group: 13 - 16 y.o.

Duration: 120 min

Key Learning Goals:

1. **Global Awareness:** Understand food security challenges and the need to feed a growing population sustainably.
2. **Critical Thinking:** Evaluate the benefits, limitations, and ethics of future food technologies.
3. **Digital Literacy:** Use online tools and AI critically while researching and comparing sources.
4. **Collaboration and Creativity:** Work in teams to produce and present an e-book about future food solutions.

Learning Outcomes

Students will be able to:

KNOWLEDGE & UNDERSTANDING:

- Explain global food challenges and new food technologies.
- Recognize environmental and ethical issues related to food production.

SKILLS & ABILITIES:

- Research and assess scientific information online.
- Collaborate and create digital materials.
- Communicate clearly and think critically.

ATTITUDES & VALUES:

- Show curiosity and openness toward innovation.
- Value sustainability and responsible consumption.
- Work in teams and respect different opinions.

European Dimension / Erasmus+ Connection

- **EU Values:** Recognize solidarity, sustainability, and responsible innovation as core European values.
- **Comparative Perspectives:** Compare food technologies, policies, and cultural attitudes across European countries.
- **European Examples:** Explore examples such as vertical farms in the Netherlands, insect farms in France, and food waste initiatives in Denmark.
- **Policy Context:** Connect the topic to the European Green Deal, Farm to Fork Strategy, and the Sustainable Development Goals.
- **Erasmus+ Connection:** Support collaborative, interdisciplinary, and digitally enabled learning with European partners.

1. Resources and Tools

- **Introduction Resource:** Short video "Future Food".
- **Research Materials:** Topic images for team selection, worksheet, timer, and recommended scientific websites.
- **Creative Tools:** Computer with internet access, Book Creator or Canva, printed e-book checklist, projector.
- **Evaluation Tools:** Peer evaluation sheets or digital forms, final workshop evaluation form.
- **Collaboration Tools:** Padlet, shared document repositories, and optional eTwinning or TwinSpace spaces.

Classroom Support Materials

- Use peer-evaluation sheets and a final workshop evaluation via printed forms, Google Forms, or Microsoft Forms.

2. Working Methods

- **Team-Based Learning:** Students work in teams on research, e-book writing, and presentation.
- **Inquiry-Based Learning:** Students ask questions, explore sources, and compare ideas.
- **Active Learning:** The lesson uses discussion, brainstorming, worksheet research, design work, presentation, and peer evaluation.
- **Differentiated Instruction:** The teacher provides different levels of support depending on student needs.

Activity Overview

Phase	Time	Activity
Introduction & Motivation	10 min	Short video "Future Food" followed by guided reflection and discussion.
Research & Learning	30 min	Students work in teams to research one future food topic using a worksheet and recommended sources.
Creative Application	60 min	Teams design an e-book and present their results; peers assess the presentations.
Reflection & Evaluation	20 min	Students create a "Menu of the Future" and complete final workshop evaluation activities.

3. Introduction and Motivation

Goal: Introduce the theme of future food and activate prior knowledge.

- **Opening Context:** Climate change, pollution, and food waste require new ideas about how we produce and consume food.
- **Video Prompt:** Students watch the short video "Future Food".

- **Guided Questions:**
  - Would you eat something unusual, such as insects or lab-grown meat, if it could help the planet?
  - What seemed the strangest or most interesting idea in the video?
  - Do you think we will need to change how we eat in the future?
- **Transition:** Students prepare to research and imagine their own "Menu of Tomorrow".

4. Activity 1: Research and Learning

Goal: Investigate future food technologies critically.

- **Team Formation:** Students draw an image from a box to join a topic team.
- **Research Topics:**
  - Vertical Farming
  - Lab-Grown Meat
  - Insect-Based Nutrition
  - Aquaponics and Hydroponics
- **Worksheet Questions:**
  - What is it?
  - What problem does it solve?
  - What are its advantages and disadvantages?
  - Does it already exist locally or globally?
  - Would you use it? Why or why not?
  - What does ChatGPT or another chatbot say about it?
  - Are the AI answers consistent with expert sources?
- **Research Expectation:** Students use reliable sources and explain their reasoning clearly.

5. Activity 2: Creative Application

Goal: Turn research into a structured digital product.

- **Task:** Teams create an e-book in Book Creator or Canva.
- **Suggested e-book structure:**
  - Title
  - What it is
  - How it works
  - Where it already exists
  - Positive and negative aspects
  - Would you use it?
  - AI opinion compared with expert sources
  - Message to society
  - Literature
- **Design Requirement:** Include at least one image, ideally created with an AI image tool.
- **Presentation:** Each team presents its e-book to the class and receives peer assessment.

6. Activity 3: Reflection and Evaluation

Goal: Consolidate learning and evaluate the workshop.

- **Brainstorming:** Students design an ideal "Future Lunch" with a warm starter, main course, and dessert.
- **Discussion:** Students compare menus and comment on each other's ideas using Padlet or classroom discussion.
- **Assessment:** Final student success combines peer evaluation and teacher assessment.
- **Final Evaluation:** Students complete a workshop evaluation form using paper or digital tools such as Google Forms or Microsoft Forms.