

Mediterranean Cuisine & Diet vs Climate Change

Educational Activity with the Use of ICT Tools and Augmented Reality (AR)

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The content is based on the Traditional Educational Material (TEM)

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IN A NUTSHEL



Overview

This activity aims to enhance students' knowledge, awareness, and responsible attitudes toward sustainable and healthy eating through the use of Augmented Reality applications and digital ICT tools for the exploration, visualization, and interactive learning of the principles of the Mediterranean diet. By combining digital exploration with a practical cooking experience, the activity encourages informed food choices and sustainable dietary planning without reliance on exotic or out-of-season products.



9+ years old



By the end of this activity, students will be able to:

- Understand the principles of the Mediterranean diet and its health benefits.
- Understand of the nutraceutical properties of fresh fruits and vegetables.
- Identify local and seasonal foods and their environmental advantages.
- Understand the concept of food miles, highlighting why consuming local produce is essential for health, environmental sustainability, and responsible food consumption.
- Analyse the climate change impact on agriculture
- Recognize the importance of a sustainable diet, not only from a health perspective but also for the well-being of the entire planet.
- Understanding that the global food industry harms the planet and that each of us can choose to eat sustainably.



Science, Geography, Environmental Studies, Home Economics



2 class hours (classroom setting)

4 hours (outdoor setting)

+ TEM Supplementary Educational Activities (*10 hours of teacher-led workshops tailored to class needs, students' age, and local territorial priorities, plus a 1-day final event*)



Teacher Preparation:

Prepare ICT tools (PC/ tablet, projector, Wi-Fi, interactive board, AR apps)

Set up the classroom for group work

Familiarize yourself with the ICT software, including datasheets and links

Print the live poster in color and high resolution

Test one QR code and marker in advance to check if everything loads

Review all materials and worksheets

Prepare guiding questions and feedback prompts

Teaching Methods

Inquiry-Based Learning (brainstorming, questioning, and experimentation).

Visual learning (Students use of AR visuals, and posters to support understanding)

Collaborative Learning



Technology enhanced learning (ICT tools, AR apps, Spreadsheets, and online sources)



Materials / equipment

PC/laptop, Video projector/screen, Wi-Fi, Interactive board

Smartphone/tablet, AR app

Poster with image markers and QR codes

Worksheet and Pens

STEP BY STEP

Get Inspired about Climate Actions

Part A: Learning Activities in the Classroom Setting

1st Phase: Activation / Prior Knowledge Investigation

Activity goal: How to feed the world.

Setting: Classroom (In-Class).

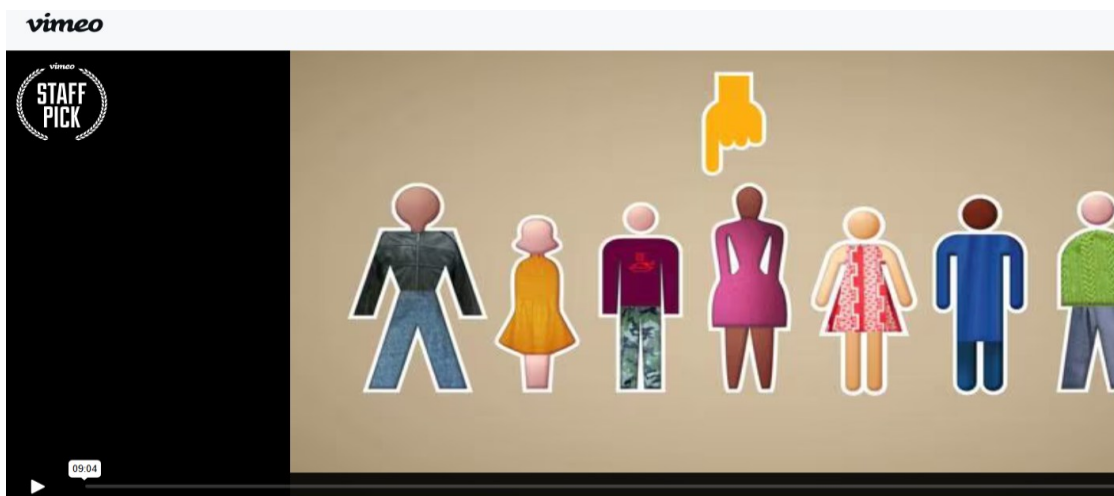
Estimated duration: 20 minutes.

Mode of Student Work: Individual thinking, group-work, and whole-class work.

Instructions for the teacher:

Use a **projector or interactive whiteboard** to display the following short video exploring the challenges of feeding a growing global population, emphasizing the importance of sustainable agriculture and innovative solutions to world hunger. Ask students “Think about what you ate yesterday at home and try to imagine where this food came from?”

- <https://vimeo.com/8812686>



After the video, pose a focused guiding question such as: “Which of the issues we saw are related to climate and to the way food is produced and consumed?” Ask each group of students to complete [Worksheet 1](#). Encourage them to share observations in their groups and clarify the following questions:

- Why is it unfair that some people have plenty of food while others do not have enough?
- What are some problems farmers in the southern hemisphere face when trying to grow enough food?
- What is one thing you or your family could do to help make food more available for everyone?

2nd Phase: Exploration

Activity goal: Students explore why seasonal foods are healthier, tastier, identify their environmental advantages, and understand the concept of food miles.

Setting: Classroom (In-Class)

Estimated duration: 25 minutes

Mode of Student Work: Students work in groups to complete the task collaboratively, whole-class discussion

Instructions for the teacher:

Give each student group a [Poster](#) that includes four (4) marker images with QR codes. Each QR code links to an AR object help students explore how seasons, climate, and location affect the fruits and vegetables we eat. Ask students to scan the QR codes on:

Marker Image 1

Marker Image 2

Marker Image 3

Marker Image 4

After viewing the Blippar clips, students complete the [Worksheet 2](#) to check their understanding.

Bring the class together to discuss. Use guiding questions to facilitate discussion, such as:

- Which Mediterranean food or habit would you like to include more often in your daily life?
- Which food or habit would you like to reduce because it has a bigger impact on the climate?

3rd Phase: Explanation

Activity goal: Students understand the principles of the Mediterranean diet and its health benefits, explaining the nutraceutical properties of its ingredients, and discover typical Mediterranean dishes from different countries.

Setting: Classroom (In-Class)

Estimated duration: 25 minutes

Mode of Student Work: Students work in groups to complete the task collaboratively, whole-class discussion

Instructions for the teacher:

Articulate the activity's conceptual framework by stating: "It is not enough to say that a food is healthy; we need to explain which component makes it beneficial and how this is connected to the environment." Create a **Padlet wall** and prompt students to actively contribute by posting a brief description, an image

or a short video related to core ingredients of the Mediterranean diet as follows:

- Each group should choose one key ingredient of the Mediterranean diet (e.g. olive oil, tomatoes, legumes, whole grains, fish, herbs, nuts, vegetables, fruits).
- Create a Padlet post including:
 - a)** A brief description of its health benefits, **b)** An image or short video of the ingredient, and **c)** Its nutraceutical properties (e.g. antioxidants, healthy fats, vitamins)
- Each group should select a typical dish from a Mediterranean country (e.g. Italy, Greece, Spain, France, Cyprus, etc.).
- Post on the Padlet:
 - a)** The name of the dish and the country of origin, **b)** A photo or short video, and **c)** The main ingredients

Encourage them to share observations in their groups and clarify the following questions:

- What did you learn about the health benefits of the Mediterranean diet?
- Which ingredient or dish surprised you the most?
- Why the selected dishes represents the Mediterranean diet principles?

The Activity text should also specify that each Padlet post must include at least one justified sentence such as: “This food helps the body because...”

Students should reflect on both the process and the impact of the action, highlighting positive outcomes and lessons learned.

Instructions for using Padlet:

- Open a web browser and go to <https://www.padlet.com>.
- Log in or create a free account using Google, Microsoft, or email.
- Click the “+ Make a Padlet” button.
- Choose a layout
- Adjust Privacy Settings to Secret: Only people with the link can access.
- Click the “+” button to add a post.
- Participants can add posts, reply to each other, or leave reactions.
- Click the “Share” button to copy the link, generate a QR code, or email.
- You can also export your Padlet as a PDF, image, or spreadsheet

4nd Phase: Application/Elaboration

Activity goal: Students explore real stories about agriculture, food, and farming in the Mediterranean countries, understand how farming connects to culture and sustainability, and discuss what they learned and relate it to food and sustainability in their own lives.

Setting: Classroom (In-Class)

Estimated duration: 20 minutes

Mode of Student Work: Students work in small groups to complete the task collaboratively

Whole-Class Discussion

Instructions for the teacher:

Open the EU Agriculture Stories page:

https://agriculture.ec.europa.eu/media/stories_en

Choose **3–5 stories** appropriate for your class (e.g., organic products, traditional foods or about young farmers). State that “We are not reading this story only to find out what happened, but to understand how food, agriculture, and the environment are connected.”

Each group choose one story and read it carefully and complete the [Worksheet 3](#).

Ask students think about their food choices this week.

Ask them to make one small promise for the next seven days that will help their health and also the environment?

Encourage them to share their idea with their group members first.

Then, each group will share that promise with the whole class.

5nd Phase: Exploring and Reflecting Data

Activity goal: Students apply the concepts learned during previous activities to design and build their own digital AR elements using Blippar.

Setting: Classroom (In-Class)

Estimated duration: 45 minutes

Mode of Student Work: Students work in small groups to complete the task collaboratively

Whole-Class Discussion

Instructions for the teacher:

Explain students they will create their own interactive Blippar AR experience.

They will integrate text, images, videos, or other multimedia elements to communicate a concept related to extreme weather events

Encourage students’ creativity and relevance to their own lives or community.

Ask each group to design a poster background that will serve as the AR marker.

Guide groups to present their Blippar creations to the class.

Facilitate a whole class discussion:

- What message does each AR experience convey?
- How effectively does it communicate the concept?
- What improvements or additions could enhance the experience?

To enhance the pedagogical value of this activity, accompany it with a guided reflection after each group presentation by asking students to complete the Table in [Worksheet 4](#).

After each group's presentation, invite a short class discussion or personal reflection using questions such as:

For the presenting group:

- What did we learn while creating our AR experience?
- What challenges did we face and how did we solve them?
- What would we change or improve if we could do this project again?
- How does our AR experience help others understand seasonal ingredients, Mediterranean diet principles, and how food connects to culture, history, and sustainability?

For the whole-class:

- What message did this group communicate most clearly?
- Which actions seem realistic for our school?
- Which actions require fewer resources and encourage immediate participation?

Poster



Worksheet 1

Group Name: _____



Fill in the blank labels with the correct words!

- Out of 6 billion people, about _____ suffer from severe under-nourishment?
- Most undernourished people live in the _____ hemisphere.
- Many farmers are undernourished because they have very _____ plots of land.
- When farmers leave rural areas for cities, people become _____ on imported food.
- Eating more plant-based foods uses _____ resources than eating meat.

Word bank: **dependent, southern, smaller, 850 million, fewer**

Worksheet 2

Group Name: _____



Exploring Seasonal and Local Foods:

1. Match each item in column A with the correct item in column B by drawing a line:

Column A: Season

- A. Summer
- B. Winter
- C. Spring
- D. Autumn

Column B: Description

- 1. Short days, cold weather
- 2. Flowers bloom, weather gets warmer
- 3. Long days, warm weather
- 4. Leaves fall, cooler weather

Correct Answer: *Available in the Toolkit

2. Recognize and Write two fruits and two vegetables that grow in our country for each season:

	Spring	Summer	Autumn	Winter
Fruit				
				
Vegetables				
				

3. Look at the two types of food production below and Tick (✓) the correct box:

Question	Seasonal Farming 🌱	Greenhouse Farming 🏠
• Uses a lot of energy	☐	☐
• Grown in the natural season	☐	☐
• Often needs long transport	☐	☐
• Better for the environment	☐	☐

4. Answer the multiple-choice questions below based on what you observed.:

1. What are "food miles" referring to in the context of sustainability?

- A) The distance food can travel before it spoils
- B) The distance food travels from where it's grown to where it's consumed
- C) The amount of miles you need to walk to burn off calories from food

2. Which of the following actions would MOST help reduce the carbon footprint of your food choices?

- A) Always buying food that is packaged in plastic
- B) Buying only imported exotic fruits and vegetables
- C) Choosing seasonal foods grown locally when possible

Correct Answer: *Available in the Toolkit

Worksheet 3

Group Name: _____

Part A – Think and Answer

- What is the main idea of the story?



_____	_____
_____	_____
_____	_____
_____	_____

- What kind of food or farming practice is highlighted?



_____	_____
_____	_____
_____	_____
_____	_____

- How does the story connect to sustainability, climate, or food culture?



_____	_____
_____	_____
_____	_____
_____	_____

- Did the story mention people (farmers, young people, chefs, etc.)?
- Who were they and what did they do?



_____	_____
_____	_____
_____	_____
_____	_____

Worksheet 4

Group Name: _____



Complete the table for peer assessment after each presentation

Evaluation Criteria	Description	Rating (1 Low to 5 High)
Clarity of Message	The AR element communicates a clear, focused message about an extreme weather event.	1 2 3 4 5
Relevance to Climate Change	The content connects meaningfully to climate change actions	1 2 3 4 5
Creativity and Innovation	The group uses visuals to engage the viewer.	1 2 3 4 5
Collaboration	The group worked cooperatively and shared tasks effectively.	1 2 3 4 5
Technical Integration	The Blippar AR functions properly and integrates multimedia elements coherently.	1 2 3 4 5

Part B: Outdoor Learning Activities

ACTION BOUND



Bound: 3.11 Mediterranean cuisine and diet vs climate change



Get the Actionbound app for free in the Apple App Store or at the Google Play Store

Scan the QR code with the Actionbound app



3.11 Mediterranean cuisine and diet vs climate change

Scan this QR code with the Actionbound app to start the Bound

The white area surrounding the QR codes should remain so that they can be scanned reliably, Just cut along the dashed lines.

QR code tasks

		
First stop: Cyprus!	Next, we sail to Italy!	Now we arrive in Greece!
		
Our final stop is France!		



Physical & Augmented Reality for Climate Change Education



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Project Partners



ISTITUTO COMPRENSIVO
GROSSETO 4



Associated Partners



1st Experimental
Primary School of Pyrgos
Wonder is the seed of knowledge



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