

Geography | Biology | Chemistry | Mathematics | Social Sciences | Economy



CLIMATE CHANGE

#### PEDAGOGIC CONTENT:

- Greenhouse gas emissions
- Carbon footprint
- Eco-consumption

### **PRE-REQUISITES:**

Knowledge about climate change (O1 draft).

## NEW COMPETENCIES TARGETED/LEARNING OUTCOMES:

#### STUDENTS WILL BE ABLE TO:

- Describe the greenhouse gas phenomenon
- Understand the origin of climate change and our responsibility
- Learn to be an eco-responsible consumer
- Do some literature research
- Summarize and expose information
- Work in team
- Define the different steps of products production and distribution









#### PREPARATION

The teacher will choose and bring to the students the following materials: 8 –10 food products (1 product/4-students team; for example cereals, rice, pasta, fruits, vegetables...), one global map per group.

## IMPLEMENTATION

#1: The teacher introduces the program and the purpose of this activity highlighting the impact of anthropogenic greenhouse gases and our contribution to climate change as consumers.

( #2: The teacher hands out a food product and a map per group.

(\*) #3:The teacher lets the students for 10 min read and note the information about the production place given on the product packaging.

(1) #4:The teacher observes each group during this session and reorients them if they are too far from the reality to define the production place of the product.

(1) #5: Let's the students search for 15 min on internet for some information about the distribution places of their product.

(1) #6: The teacher observes each group during this session and reorients them if they are too far from the reality to define the distribution places of the product.

(1) #7: Students have 5 min to plot on the map the projections of train tracks and/or the sea and/or air routes between the places of production and distribution.

(1) #8: Students have 15 min to quantify the travels in km and in terms of CO2 emissions using online carbon footprint calculators (for example the one cited below).

(1) #9:The teacher lets each group (5 min/group) to expose the information collected on the product (what is it, production and distribution places, projections of train tracks and/or sea and/or air routes on the map, CO2 emissions estimation, etc.). (total duration : 30 min)

(1) #10:The teacher summarizes the information collected and proposes to the students to think and discuss about alternative solutions of consumption, privileging local producers or products from ranching for example, to reduce our carbon footprint as consumers. (duration 10 minutes)





Type of activity	$\oslash$	Information research	
Target audience	٢	From 11 years old	
Place		Classroom, ICT laboratory	
Material needed	$\check{\diamond}$		
	$\mathbf{\circ}$	1 global map/4-students group	
		1 computer access and/or tablets /4-	
		students group	
		Worksheet	
Duration of	$\bigcirc$		
activity	$\smile$		
Authorship	$\oslash$	CPIE Bastia U Marinu	
·		No authorization required	
Links	(1710710)	https://www.carbonfootprint.com/calcul	
	$\smile$	ator.aspx	
Notes by author	$\oslash$	The teacher should privilege packaged	
		products. Concerning the others, fruits	
		or vegetables for example, the teacher	
		should keep in mind and add a target on	
		the product with the production place,	
		indicated in the store shelves, and the	
		producer name to help students to do	

places.

information research on the distribution



















# Worksheet

# Be an eco-responsible consumer

Food product	
Production place	
Distribution place(s)	

Circle the transport used between the production place and the distribution ones.

Train Plane	Boat	Other
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# How many kilometers does the product travel?

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How much do you estimate the carbon emissions related to the product travel?

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