

NATURE-BASED SOLUTIONS LEARNING SCENARIO

Title

Where is this coming from?

Author(s)

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Abstract

The purpose of this learning scenario is to explore the origin of three products , analysing the impact of the production of products on the environment. Although this learning scenario uses 3 products of common use it can be implemented using other products or service as a basis. Students are going collect, analyze and evaluate data on the impact of product production and consumption on sustainable development.

Keywords

Production, products, sustainable development, ecological footprint, consumption

Introduction (leave this section as it is)

"Nature-based solutions (NBS) are solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes, and seascapes, through locally adapted, resource-efficient and systemic interventions. Nature-based solutions must therefore benefit biodiversity and support the delivery of a range of ecosystem services." https://ec.europa.eu/info/research-and-innovation/research-area/environment/nature-based-solutions_en

To use this Learning Scenario more effectively, teachers are encouraged to:

- Check out the [list of recent EU publications on Nature-Based solutions](#)
- Read about [Nature-based solutions: Transforming cities, enhancing well-being](#) (also [available as a PDF](#))
- Contact local NBS practitioners or scientists working in their area (they can be found through [Oppla](#)).
- Use the "[Ask Oppla](#)" service to request help in case of any technical/scientific question on NBS.

Overview

Table of summary

<i>Subject</i>	<i>corporate social responsibility, entrepreneurship (economy school subject), geography, biology,</i>
<i>Topic</i>	<i>Indicate below which of the nine NBS topics your learning scenario addresses:</i> 1. Understanding NBS
<i>Age of students</i>	14-16
<i>Preparation time</i>	120
<i>Teaching time</i>	90 (2 lesson)
<i>Online teaching material</i>	Mentimeter https://www.mentimeter.com/ Canva https://www.canva.com/hr_hr/ YouTube https://www.youtube.com/
<i>Offline teaching material</i>	Worksheets, mobile phone, camera, computer, projector screen,
<i>NBS resources used</i>	5 principles of Green Economy Oppla Nature based solutions on the European Commission website Greta's speech Ecological footprint The story of solutions

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Integration into the curriculum

This is an interdisciplinary scenario that according to the program of the Croatian secondary schools (high school) tries to achieve the objectives of following subjects: corporate social responsibility, entrepreneurship

(economy school subject), geography, biology.

These contents aim for students to:

- *Develop positive attitudes towards the environment*
- *Consider the environment in economic decision making*
- *Reflect on environmental problems.*
- *Know and appreciate the importance of achieving sustainable development.*

Aim of the lesson

The aim of the lesson is: encouraging creativity and social responsibility and the development of critical and creative thinking in solving the problem of sustainable development

Outcome of the lesson

The students will:

- *suggest ways to improve personal and general well-being*
- *collect data on the impact of production and consumption on sustainable development*
- *analyze the principles of sustainable production and consumption*

Trends

The relevant trends that the lesson incorporates are:

- *Collaborative Learning*
- *Brainstorming*
- *Mobile Learning*
- *Project-based Learning*

21st century skills

- *Literary literacy: ability to read, understand and use specific language in the context of study.*
- *Scientific literacy: ability to use knowledge and scientific principles to understand an individual's environment and make assumptions.*
- *Critical thinking/Problem-solving: ability to identify and ponder upon situations, ideas, and information to formulate answers and solutions.*
- *Creativity: ability to imagine and design new and innovative ways of tackling problems, responding to requests through the synthesis and application of knowledge*
- *Communication: ability to listen, understand and contextualise information through verbal, non-verbal, written, and visual signs.*
- *Collaboration: ability to work in a team to achieve a common goal, with the ability to prevent and manage conflicts.*
- *Curiosity: desire to ask questions, demonstrating an open mind*
- *Initiative: desire to take on new tasks and objectives*
- *Perseverance: ability to maintain interest in achieving a goal*
- *Flexibility: ability to change plans, methods, opinions, and goals in light of new information*
- *Social and cultural awareness: ability to interact with other people in a socially and ethically appropriate way*

Activities

Name of activity	Procedure	Time
SESSION 1		
Topic description and assignment of tasks	<i>The first activity is to introduce and create the School Class Project Group with the role of coordinating and monitoring all actions planned for the students. The monitoring areas consists of each group of students choosing an assignment to work on.(3 groups)</i>	5'
Team work TASK 1	<p><i>Each group has to work on a different material.</i></p> <p>1.st group 5 principles of Green Economy</p> <p>2.nd group Greta's speech</p> <p>3.rd group The story of solutions</p> <p><i>After watching the material students have to do a presentation. In the presentation they must present to other groups 5 crucial ideas from their group video. They will use https://www.canva.com/hr_hr/ for presentation. Each presentation must last 2-3 minutes.</i></p>	40'
SESSION 2		
Team work TASK 2	<i>Students are shown three items: cotton T-shirt, chocolate, banana. Each group choose one item. The students must think about the production or cultivation of their group product. They answer the questions on the work sheet.(annex 1., 2., 3.).After answering students will their answers from the work sheet show on the poster or on presentation. They will use https://www.canva.com/hr_hr/</i>	30'
Formative assessment	<i>Students will to know their own ecological footprint by using next link Ecological footprint</i>	5'

Assessment

Students will to know their own ecological footprint by using next link [Ecological footprint](#)

Student feedback

The teacher ask students to grade the lesson via the tool <https://www.mentimeter.com/> The Mentimeter is a digital tool that allows the teacher to ask questions and gather feedback. Students enter their answers via mobile devices and all they need to access is code and links (like the Kahoot! Tool).

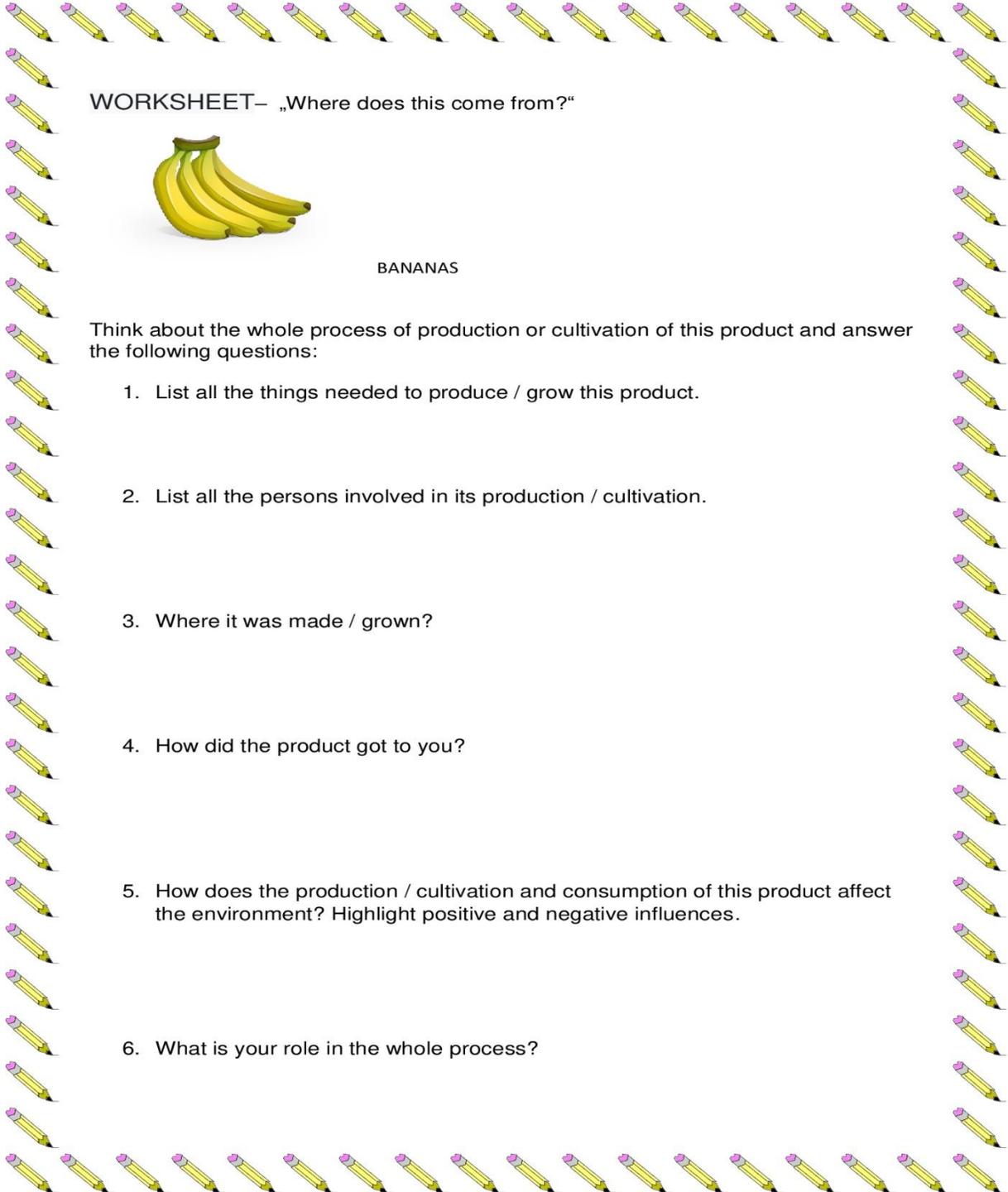
About the NBS project (leave this section as it is)

The NBS MOOC, coordinated by European Schoolnet (EUN), is part of the NBS pilots initiated and funded by the European Commission Directorate-General for Research and Innovation. The LS and MOOC are based on the EC-funded Learning Scenarios developed by EUN (www.eun.org) with the support of PPMI (www.ppmi.lt/en), and organised with the support of VO EUROPE (<https://www.vo-group.be/en>). The MOOC is also supported by Scientix, funded from the European Union's H2020 research and innovation programme – project Scientix 4 (Grant Agreement N. 101000063). The content is the sole responsibility of the organiser and it does not represent the opinion of the European Commission (EC), and the EC is not responsible for any use that might be made of information contained.

Find out more about nature-based solutions: <https://ec.europa.eu/research/environment/index.cfm?pg=nbs>

Annex

Annex 1:



WORKSHEET- „Where does this come from?“

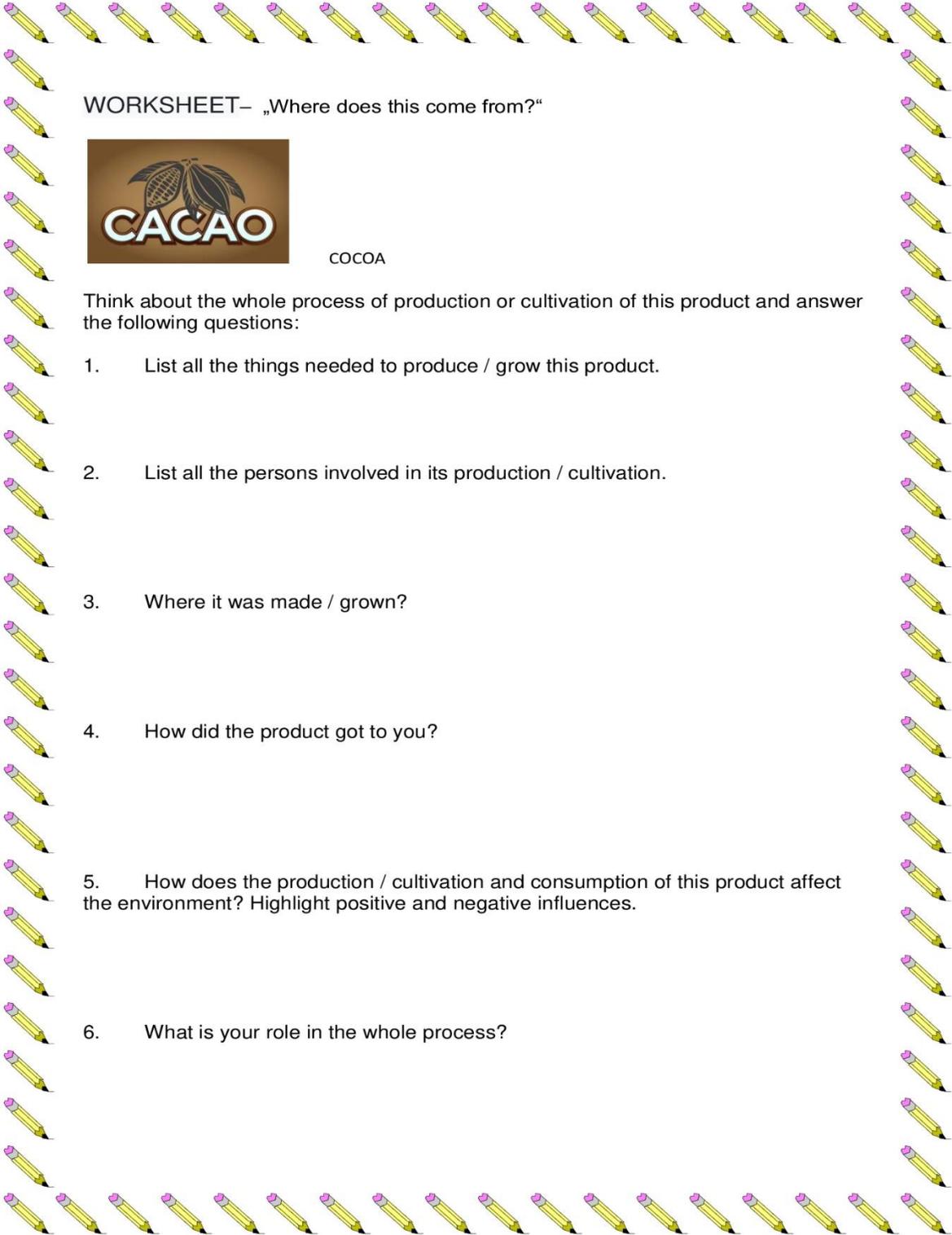


BANANAS

Think about the whole process of production or cultivation of this product and answer the following questions:

1. List all the things needed to produce / grow this product.
2. List all the persons involved in its production / cultivation.
3. Where it was made / grown?
4. How did the product got to you?
5. How does the production / cultivation and consumption of this product affect the environment? Highlight positive and negative influences.
6. What is your role in the whole process?

Annex 2:



WORKSHEET- „Where does this come from?“

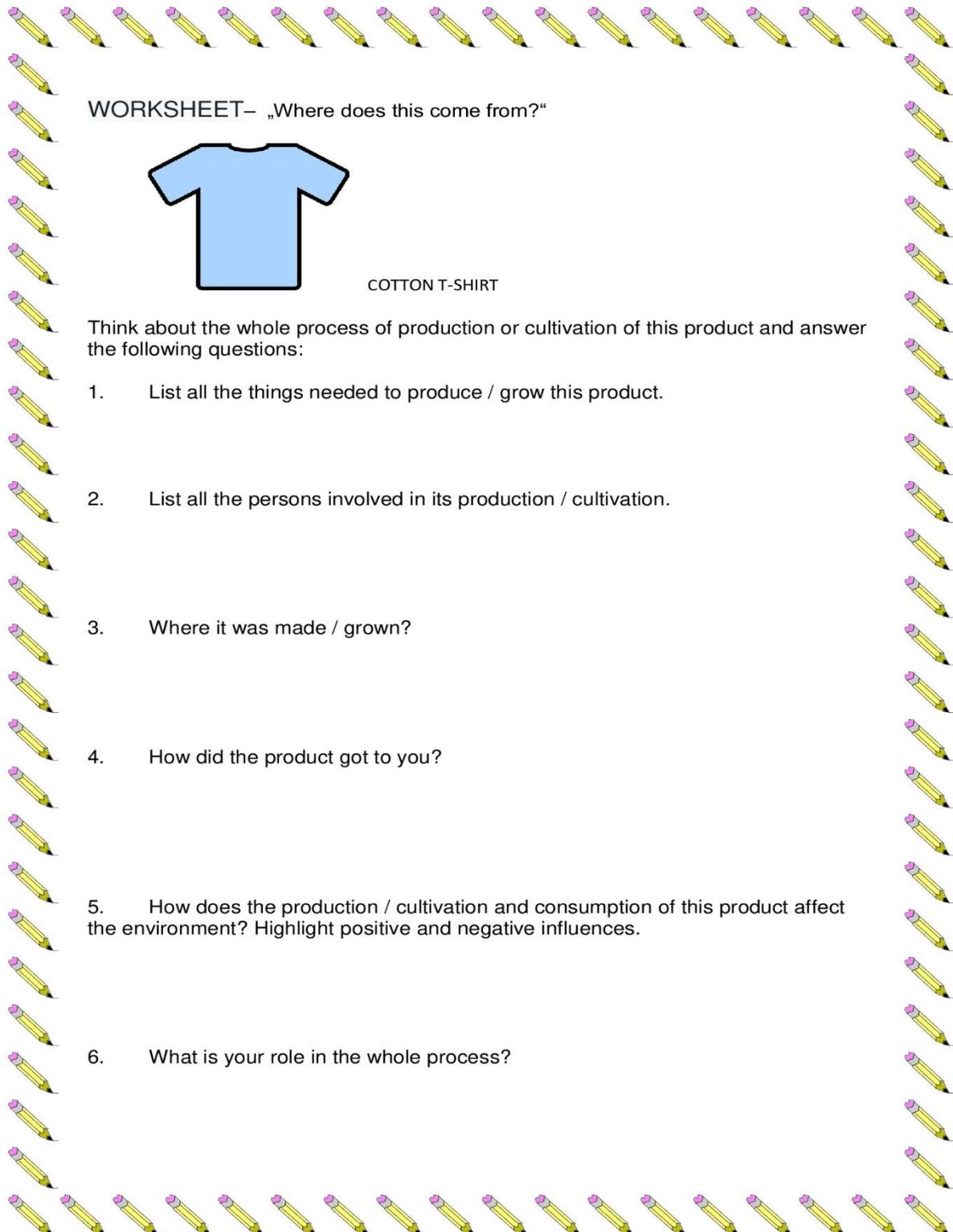


COCOA

Think about the whole process of production or cultivation of this product and answer the following questions:

1. List all the things needed to produce / grow this product.
2. List all the persons involved in its production / cultivation.
3. Where it was made / grown?
4. How did the product got to you?
5. How does the production / cultivation and consumption of this product affect the environment? Highlight positive and negative influences.
6. What is your role in the whole process?

Annex 3:



WORKSHEET– „Where does this come from?“



COTTON T-SHIRT

Think about the whole process of production or cultivation of this product and answer the following questions:

1. List all the things needed to produce / grow this product.
2. List all the persons involved in its production / cultivation.
3. Where it was made / grown?
4. How did the product got to you?
5. How does the production / cultivation and consumption of this product affect the environment? Highlight positive and negative influences.
6. What is your role in the whole process?