Lerneinheit 03: Community Participation

The case of saving water- Introduction to Water Use and Conservation

Objective: This activity offers an introduction to water consumption. Additionally, it serves the students to ponder on the implications of knowing in which ways water is involved in agricultural production processes.
Learning outcomes: The learners are able to use information offered on the internet to define specific terms and relate them to each other. Moreover, they are able to link their knowledge gained through media to new information and use it to develop critical ideas on a question/problem.
Previous knowledge: The learners are supposed to have already dealt with the term 'participation'.
Duration: 45 minutes
Materials / Conditions:Internet access, resources listed below
Methods / Techniques: Extracting information from text, describing, explaining, matching, reasoning
Learning subject: Citizenship / Module I: Community-Participation: The case of saving water / Level: First contact

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Introduction:
Due to its scarcity water is a valuable commodity in Cabo Verde. In order to understand how it can be conserved, however, you first need to know how it is involved in the production of (agricultural) products.

Instruction:

1. Visit http://www.wri.org/blog/2013/03/what%E2%80%99s-difference-between-water-use-and-water-consumption or see Material 1 for a definition of 'water consumption'. Afterwards define it in your own words.
2. Explain in your own words the relation between water use and water consumption. The information on the website and the material 1 from task 1 will help you.
3. Read the quote in Material 2.

- a)Which of the two terms (water use or water consumption) is referred to in the quote? Give reasons for your answer.
- b) Give reasons why the fact in Material 2 needs to be considered in order to participate in water conservation in agriculture.

Resources:

Material 1:

So what do ”water use” and “water consumption” mean?

- “Water use” describes the total amount of water withdrawn from its source to be used. Measures of water usage help evaluate the level of demand from industrial, agricultural, and domestic users. For example, a manufacturing plant might require 10,000 gallons of freshwater a day for cooling, running, or cleaning its equipment. Even if the plant returns 95 percent of that water to the watershed, the plant needs all 10,000 gallons to operate.
- “Water consumption” is the portion of water use that is not returned to the original water source after being withdrawn. Consumption occurs when water is lost into the atmosphere through evaporation or incorporated into a product or plant (such as a corn stalk) and is no longer available for reuse. Water consumption is particularly relevant when analyzing water scarcity and the impact of human activities on water availability. For example, irrigated agriculture accounts for 70 percent of water use worldwide and almost 50 percent of that is lost, either evaporated into the atmosphere or transpired through plant leaves.

altered from: World Resources Institute, 2016, Online: http://www.wri.org/blog/2013/03/what%E2%80%99s-difference-between-water-use-and-water-consumption (07.08.2016)

Material 2:
“Water is probably one of the most precious resources and vital for everyone’s everyday life. Despite this obvious fact, people use large amounts of water: drinking, cooking and washing, but even more for producing things such as food, paper, cotton clothes, and almost every other physical product.”

altered from: World Resources Institute, 2016, Online: http://virtualwater.eu/#about (07.08.2016)

Possible results / Results:

1. Water consumption is the water withdrawn and used for agricultural, industrial, and domestic purposes which is not returned to a watershed. The processes for which the water is used do not allow to return it to where it was taken from.
2. ‘Water use’ refers to all the water withdrawn and used for agricultural, industrial, and domestic purposes. ‘Water consumption’ refers to water used for these purposes, either. However, the crucial point regarding water consumption is that it is not returned to watersheds. Hence, while ‘water use’ embraces all kinds of purposes water is used for, ‘water consumption’ only focuses on those by which water becomes inaccessible for further uses.
3.

- a)The quote refers to both ‘water use’ and ‘water consumption.’ This becomes obvious focusing on the production of food. The growing of cotton, for example, involves water use since some water can be returned to watersheds in the production process. At the same time, the growing of cotton also involves water consumption since some of the water used cannot be returned to watersheds and becomes inaccessible for further use.

- b)There is a variety of possible answers for this task. Each should, nevertheless, show that the learner reflected on the relevance of the given information. This is one way to solve it: Information about the water needed for the production of agricultural goods is of basic importance for participating in water conservation since it offers insight into the production processes. It leads to the question what exactly water is used and consumed for in agriculture. Given more information one can start to develop ideas on how the water involved can be reduced. Thus, general information of water involved in the production of commodities serves as basis for further questions that need to be asked to approach water conservation and, eventually, to save water.

Related activities:

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From:
https://foc.neu.geomedienlabor.de/ - **Frankfurt Open Courseware**

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