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VET SUSTAINABILITY KIT

Water Saving



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Area's name: Water Saving

Questions/statements related to the area						
No.	Question/statement	Always	Often	Rarely	Never	N/A
For individuals						
1.	I collect rainwater					
2.	I take a shower instead of a bath					
3.	I use a cup to brush my teeth (I don't brush my teeth under running water)					
4.	I use aerators in the faucets and a rain shower in the shower					
5.	I don't run the washing machine/dishwasher until it's full					
6.	When boiling water in the kettle, I pour only as much as I really need					
7.	I wash fruit and vegetables in a bowl of water instead of running it					
8.	I use the water from washing fruit and vegetables to water my flowers					
9.	I use a mop or a bucket instead of a garden hose to wash my car					
10.	I monitor my water meter to consciously control my consumption					
11.	I choose native plants that are adapted to local conditions and require less water					
12.	I use a composter to reduce water consumption in the garden					



13.	I collect water from the shower while waiting for hot water, and use it, for example, to water the plants					
14.	I choose household appliances with low water consumption, such as washing machines and dishwashers					
15.	I check for leaks in the water system in my house					
For organisations						
1.	The organisation uses recirculation and water recovery techniques in its production processes					
2.	The organisation trains employees in the conscious use of water and saving it					
3.	The organisation invests in water monitoring systems that help identify and repair leaks					
4.	The organisation promotes the responsible use of drinking water and pays attention to avoiding its waste					
5.	The organisation uses water-saving technologies, such as effective sanitation and hygiene facilities					

Self-assessment instruction for individuals:

For each answer "always" and "often" you get 1 point.

Number of points: *from 15 to 12 - You are doing great and supporting the sustainable development of our planet - keep going.*

Number of points: *from 11 to 8 - It is noticeable that you are working for the sustainable development of our planet - continue like this and think about what else you could do.*

Number of points: *from 7 to 4 - You take some steps for the sustainable development of the planet, but it would be worth expanding your activities. Think about what changes you could make.*

Number of points: *from 3 to 0 - This is rather the beginning of your path for the sustainable development of our planet. Don't be discouraged and think about what you could do. Even the little things make a big difference if a lot of people do them.*

Useful information

Scientific facts

1. Water covers almost 75% of the Earth's surface, and the volume of the hydrosphere is 1.4 billion km³. However, freshwater accounts for less than 3% of this volume.

2. Less than 3% of the world's water is fresh (drinkable), of which 2.5% is in the form of ice in Antarctica, the Arctic and glaciers. Humans misuse and pollute water faster than nature can recycle and purify it in rivers and lakes.

3. About 785 million people in the world do not have access to clean drinking water.

4. During one approximately 10-minute shower per day, the average person uses an amount of water equal to more than 100,000 glasses of drinking water per year.

5. About 4 billion people, so nearly two-thirds of the world's population, suffer severe water scarcity for at least one month of the year.



6. Agriculture is by far the largest water consumer, accounting for 72% of the world's annual water pumping. Switching to a plant-based diet is one of the most effective actions that can be taken to save water.

7. During a 10-minute rain, approximately 180 litres of water can be collected from a roof with an area of 120 m². This is as much as it takes to take five showers, do six loads of laundry or flush the toilet 30 times.





8. The average consumption of water in households per person is 144 litres per day. This is almost three times more than we need to meet basic needs.
9. Food purposes account for only 3% of the water used in homes, or about 5 litres per day per person. We use the most water for personal hygiene - about 35%. Along with washing the dishes, these are the three main uses for clean tap water. However, for flushing the toilet or cleaning (both activities together account for 54% of daily water consumption per person - about 40 litres each), other sources of water can be sought.
10. The production of a loaf of bread is responsible for the consumption of 1,600 litres of water, 1 kg of beef - 15,000 litres, a book (500 pages) - 1.3 thousand litres, and 1 kg of chocolate - 17 thousand litres.
11. Mining and manufacturing account for 18% of water use, and households account for about 12% of water use. European households are supplied with an average of 144 litres of water per person per day.
12. Each of us also has an indirect impact on water consumption by industry, which accounts for 70% of water abstracted, and agriculture and forestry, where this value is 10%. We do this through our purchasing decisions.
13. 70% of global clean water consumption is accounted for by agriculture, 19% for industry and 11% for households.
14. In 2020, 74% of the world's population (5.8 billion people) used a safe drinking water service - that is, water that is available on the property, accessible in times of need and free from contamination.
15. More than 13 million households use their own private wells and purify and pump their own water.
16. If you leave the water running while brushing your teeth, you will use about 19 litres.
17. The average swimming pool requires 22,000 gallons of water to fill, and if not covered, hundreds of gallons of water can be lost per month due to evaporation.
18. Since 2000, the number of flood-related disasters has increased by 134% compared to the previous two decades. Most of the deaths and economic losses caused by floods were recorded in Asia (WMO). The number and duration of droughts also increased by 29% over the same period. Most drought-related deaths occurred in Africa (WMO).
19. 98 billion people worldwide lack basic water services in their healthcare facility.





Ways/actions of saving in a given item (divided into individual people and VET institutions)

INDIVIDUALS:

- Drink tap water - give up bottled water in favour of tap water. You will save money, time and the environment. The tap in the kitchen flows dozens of times cheaper, unpackaged water with a very similar mineral composition. Like water throughout the European Union, it meets the standards of drinking water without boiling. If you need to, treat water at home - using a water filter jug or appropriate systems that improve the quality of tap water.
(<https://włączoszczędzanie.pl/oszczędzanie-wody/>)
- Saving water is about, among other things, preventing its unnecessary outflow from the water system, rational use and limiting the amount of fertilizers, plant protection products and detergents used.
(<https://zpe.gov.pl/a/zasoby-wody-i-ich-ochrona/D7npMF5Lo>)
- Install a shower head with a water flow reducer. The level of water flow from the faucet is influenced not only by solutions used in faucets, but also in shower heads. It is worth mentioning the system with a flow reducer that automatically responds to changes in water pressure. This special limiter can be in the form of a round sleeve screwed into the shower head (shower aerator), or a mounted shower faucet, reducing the flow of water up to 4 litres per minute.
(<https://włączoszczędzanie.pl/oszczędzanie-wody/>)



- Take a quick shower, not a bath – taking a shower uses about 35 litres of water at 45°C, and it takes about 100 litres to fill a small bathtub, so it also consumes 3 times more energy. Don't stand under running water – the average shower takes 60 litres of water. Wet your body, turn off the water while soaping, and turn it back on to rinse. (<https://włączoszczędzanie.pl/oszczędzanie-wody/>)
- Buy only what you need, in the right quantities, and – if possible – choose, above all, those products whose production was the most neutral for the environment. (<https://naukawpolsce.pl/aktualnosci/news%2C81311%2Ceks-perci-przed-swiatowym-dniem-wody-chcesz-oszczedzac-wode-oszczedzaj>)
- Collect rainwater – rainwater, unlike tap water, is free and does not contain chlorine, fluorine and calcium. Rainwater is soft and ideal for watering plants. It is best to use a large tank to collect it. You can also collect rainwater in a smaller container, e.g. a plastic or wooden barrel. It's a simple solution – you place the tank next to the pipe through which rainwater is collected from the roof flows. The collected water can be used to water plants in the garden, but also to wash external surfaces, stairs, terraces, vehicles. With the water collected in this way, you can save several hundred litres a month. (<https://włączoszczędzanie.pl/oszczędzanie-wody/>)





ORGANISATIONS:

- Environmental education - make sure that your colleagues know that the company is focused on saving water. Including the policy in the handbook for employees is a message that sustainable development is an integral part of the company's mission. (<https://ecowater.pl/blog/10-sposobow-na-oszczedzanie-wody-w-biurze/>)
- Choose modern toilets that use 3-5 litres per flush, not 8-15 litres like the older models. Also invest in aerators. Connected to the bathroom faucet used for washing hands, they mix air with water. In this way, they make the jet seem more efficient, despite the low water consumption. (<https://www.energa.pl/zielone-pojecie/oszczedzanie/jak-oszczedzac-prad-i-wode-w-firmie.html>)
- Signs in an office kitchen can remind people to compost food scraps instead of using the garbage disposal, which uses water every time. (<https://ecowater.pl/blog/10-sposobow-na-oszczedzanie-wody-w-biurze/>)
- Investigate your irrigation system to see if it can use alternative water sources, such as captured rainwater. If so, install a barrel system for irrigation and cooling. (<https://ecowater.pl/blog/10-sposobow-na-oszczedzanie-wody-w-biurze/>)
- In the company, take care of the proper use of water-consuming equipment, e.g. only run the dishwasher when it is fully loaded. (<https://greenie-world.com/artykul/jak-oszczedzac-wode-energie-i-srodowisko-naturalne/>)



EDUCATIONAL TOOLS

Associations with water (duration: 10-15 mins)

Aim: The aim of this exercise is to initiate reflection among the participants on water and the need to save it, and to encourage the exchange of ideas and experiences in this field.

Description:

- 1. The participants are asked to sit in a circle, creating a friendly atmosphere of cooperation.*
- 2. One of the participants is selected to start the exercise, giving everyone an equal chance.*
- 3. The participant is asked to name one word that he/she associates with water. For example, it can be "pond" or "rain".*
- 4. The next participant continues the exercise, referring to the previous word and giving the next association. For example, if the previous word is "rain", they might give "umbrella" or "damp".*
- 5. This process is repeated, giving each person the opportunity to share one association.*
- 6. The participants are then encouraged to share short stories, experiences or ideas related to each word if they wish.*

Alternatively, if we want to focus on the facts and myths related to saving water, we can use the following proposal:



Facts or myths? (duration: 10-15 mins)

Aim: The aim of this exercise is to test the participants' knowledge in the field of water saving by identifying facts and myths.

Description:

- 1. We are preparing a list of several statements related to saving water, containing both facts and myths. You can use the facts and statistics presented in the document. Example statements may include the following:
"Closing the tap while brushing your teeth saves about 8 litres of water a day."
"Washing dishes by hand uses less water than a dishwasher."
"A shower is more economical than a bath."
"Drops of water leaking from the tap are only a minor waste and do not significantly affect water consumption."*
- 2. The participants are divided into small groups.*
- 3. The chosen facilitator reads the first statement from the list and the groups discuss and state their decision whether it is a fact or a myth. They are given a few moments for group discussion.*
- 4. Each group is asked to share their decision and its brief justification.*
- 5. The process continues with subsequent statements until we have gone through the entire list.*
- 6. The participants are encouraged to share their thoughts, experiences or conclusions about each statement.*
- 7. During the discussion, the leader stimulates the participants to actively participate, ask questions and present additional arguments related to a given statement.*
- 8. After going through all the statements, the facilitator summarizes the results and discusses the correct answers, explaining why the statements are facts or myths, presenting available information and research.*
- 9. The participants are encouraged to reflect on their knowledge of water saving and to consider what changes they can make in their daily lives to use water resources more efficiently.*
- 10. The exercise ends by highlighting that the acquired knowledge can have a positive impact on the environment and contribute to water saving on a large*

These ice-breakers help the participants kick off a meeting or workshop in an engaging way while introducing important water-saving information. They enable the exchange of views, develop awareness and encourage the participants to reflect on their own habits and activities in the context of protecting water resources.

Exploring hidden sources of waste (duration: 20-30 mins)

Materials needed: Cards or notebooks, pens, board and markers for possible presentation.

Aim: The aim of this exercise is to raise the participants' awareness and identify existing sources of waste of water resources in their environment. The exercise can be done individually or in small groups.

Instructions:

- 1. Divide the participants into pairs or small groups, encouraging effective collaboration and exchange of ideas.*
- 2. Explain to the participants that it is their task to conduct a survey of their environment, including workplaces or homes, in order to identify existing sources of waste of water resources.*
- 3. Outline the participants with the goal of the exercise, which is to identify at least three specific sources of waste, such as leaking taps, leaky toilets, overused garden irrigation systems, or extended showers.*
- 4. Offer the participants appropriate diagnostic tools that will help them effectively monitor and analyse water consumption in the identified areas. These can be, for example, cards or notebooks and pens to write down the observations.*
- 5. Ask the participants to record their results and draw conclusions based on the collected data. Encourage them to discuss the potential benefits of eliminating waste and to present their suggestions for improving efficiency.*
- 6. Emphasize the importance of reflecting on results by encouraging the participants to discuss the activities that have produced the best results and to formulate long-term strategies to reduce the waste of water resources.*
- 7. In conclusion, highlight the importance of the participants' achievements in reducing the waste of water resources and encourage them to share their experiences to inspire others to adopt similar attitudes.*

The course of the exercise:

- 1.The facilitator introduces the participants to the topic and discusses the instructions, encouraging them to ask questions and clarify doubts.*
- 2.The participants organize themselves into pairs or small groups.*
- 3.The facilitator reminds the participants of the goal of the exercise, which is to identify at least three specific sources of waste of water resources.*
- 4.The participants conduct a survey of their environment, focusing on workplaces or homes.*
- 5.The participants use diagnostic tools such as paper or notebooks and pens to record their observations.*
- 6.After the study is completed, the participants analyze the collected data and draw conclusions.*
- 7.The participants share their observations and proposals on reducing the waste of water resources.*
- 8.The facilitator moderates the discussion and encourages reflection on the solutions found.*
- 9.The facilitator emphasizes the importance of the participants' achievements and encourages them to share their experiences in order to inspire others.*
- 10.The exercise end with a summary of the conclusions and discussion of long-term strategies to reduce the waste of water resources.*

The activity "Exploring hidden sources of waste" allows the participants to look at their environment from the perspective of saving water. By identifying specific sources of waste, the participants become more aware of their daily habits and have the opportunity to make positive changes in their environment. Through discussion and exchange of ideas, the exercise encourages creative problem solving related to water saving.





External Digital Tools

Integrated Educational Platform (Pol.: Zintegrowana Platforma Edukacyjna) -
<https://zpe.gov.pl/a/zasoby-wody-i-ich-ochrona/D7npMF5Lo>

The site refers to the topic of water resources and their protection. It was created as an Integrated Educational Platform and contains information on the state of water resources in Poland and actions taken to protect them. On the website, you can find a variety of content related to water resources, including reports, analyses, publications and maps showing, among others, water resources. availability of water resources in the country. Information on water management strategies and plans is also provided.

Sustainable Development Goals - <http://www.un.org.pl/cel6>

The platform addresses the United Nations Sustainable Development Goal 6 (SDG 6) – Ensuring access to water and sanitation for all. This goal is part of a broader global sustainable development agenda that aims to address the most important social, economic and environmental challenges we face.

WaterSense - <https://www.epa.gov/watersense>

Website of the WaterSense program, run by the United States Environmental Protection Agency (EPA). It contains information on saving water in homes, buildings and gardens, and offers interactive tools such as water consumption calculators and device efficiency comparisons.





Water Footprint Network - <https://www.waterfootprint.org/>

The Water Footprint Network website by a non-profit water footprint research organisation. It provides tools such as a water footprint calculator that allows you to assess the impact of specific activities on the water environment.

Water Calculator - <https://www.watercalculator.org/>

A water calculator that allows you to assess your personal water footprint by answering questions about your daily habits and choices. Provides information on water consumption related to food, energy, transport and other aspects of life, and suggestions for reducing water consumption.

Games for Sustainability - <https://games4sustainability.org/>

A portal containing proposals for games concerning ecology and sustainable development.





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