

IO3 – ICE-CAP

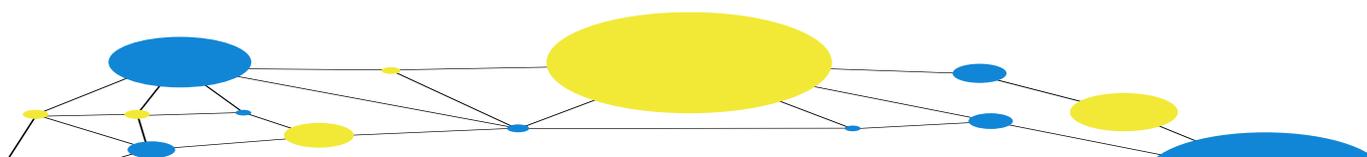
WebQuests

WebQuest – Water

Developed by DANTE

ice-cap

<b>TIME ALLOCATED:</b>	180 minutes
<b>LEVEL:</b>	Advanced
<b>TITLE OF THE WEBQUEST:</b>	Test the Waters
<p><b>INTRODUCTION</b> (It involves giving background information on the topic and, often introduces key vocabulary and concepts which learners will need to understand in order to complete the tasks involved. It should present a scenario and context for playing out the tasks in the WebQuest and it should be a fun, engaging and creative so as to draw the learners in):</p> <p>Water is one of the most important of all natural resources. Biological processes necessary for all living organisms require water. Although we have recognized the importance of water to both the environment and society, we have often disregarded its value by polluting rivers, lakes, oceans, and groundwater.</p> <p>With our actions, we have altered natural processes to the point where many organisms can no longer exist, once-reliable sources of drinking water can no longer be used, and our ability to use water for recreational purposes has been impaired.</p> <p>To combat pollution, we must understand the nature of the problem and select and implement practices that reduce our impact upon this natural resource.</p> <p>How can you promote important educational information on water pollution in your community? How can you make information on water pollution quick and accessible to other students, your friends, and family members?</p>	
<p><b>TASKS</b> (explains clearly and precisely what learners have to do, it should be motivating and interesting and where possible, it should include activities that contribute to the development of skills that they will use in their daily lives. Guidance should be given on how to present findings; for example, maps, graphs, essays, wall displays and diagrams):</p> <p>Your class has decided to start another awareness-raising project aimed at protecting the environment. This semester you will help increase public awareness about water pollution and prevent its spread.</p> <p>To do so, you will need to learn how to design short and understandable online education content.</p> <p>Will you succeed in creating engaging and on-the-go educational activities about water pollution?</p> <p>To complete this task, you will have to follow the steps outlined in the process below.</p>	
<p><b>PROCESS</b> (set of steps and research tasks using predefined sources that are predominantly web-based usually in a clickable form. This stage has usually one or more “products” that learners are expected to present at the end. These products form the basis of the Evaluation stage.</p>	



### **Step 1 – What is water pollution?**

Your first step is to research the topic of water pollution and its impact on our environment. Try to find information online that will help you answer the following questions:

- What is water pollution?
- What are some of the sources of water pollution?
- What is the impact of water pollution on human health and the environment?
- What can be done to improve the quality of water after it has become polluted?

You can use links provided in the ‘Resources’ section as your starting point.

What new information did you find? What lessons would you highlight as the most important and/or useful? Which 10 pieces of information do you think more people should know?

### **Step 2 – What is microlearning?**

Have you ever heard of microlearning? What is it? How is it structured? What are its advantages and disadvantages? What format(s) can it be used in? Can you come up with some examples of microlearning you do in your everyday life?

To better understand what microlearning is and why it is used, explore the links provided in the ‘Resources’ section below.

After researching the topic, list 4-6 main characteristics of microlearning.

### **Step 3 – Design your microlearning content on water pollution**

Now that you have found out the main benefits of providing educational information in the form of microlearnings, you will design your own microlearning content on water pollution.

Think about:

- What topics/pieces of information do you think more people should know? Use information you selected in Step 1.
- What format will you use for your microlearnings (e.g., text, video, image, quiz)?
- What free tools can you use (e.g. Canva to create an infographic/poster, Quizizz to create a quiz, Animoto to create a video)?
- Who will be your target audience?

For suggestions on what tools to use, consult ideas provided in the ‘Resources’ section below.

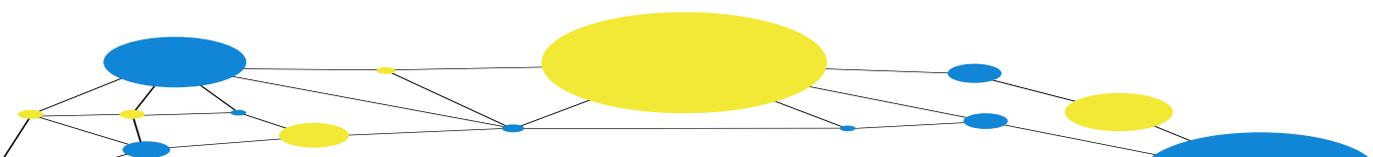
Create at least 3-5 microlearnings.

### **Step 4 – Publish and promote your microlearning content**

It is time to publish your microlearnings and start raising awareness of the impact of water pollution.

Select where and how you will post the microlearnings. Pay attention to the following questions:

- Which social media will you publish it on? Why?



- How will you make sure that people engage with your microlearnings?
- How will you make sure your message reaches the greatest number of people?
- How will you interact with your audience?

How many local community members did you manage to reach? How many people viewed your posts? How many people interacted with your content (e.g. commented, liked)?

What impact will it have on their behaviour?

**RESOURCES:** For each step in the process, there should also be a series of links included (3-4 per step). These links should be for videos, articles, blogs, webpages, etc. that the learners can visit to help them to complete the task. Links should be embedded in the WebQuest to sites, pages, databases, search engines and so on.):

**Resources for Step 1:**

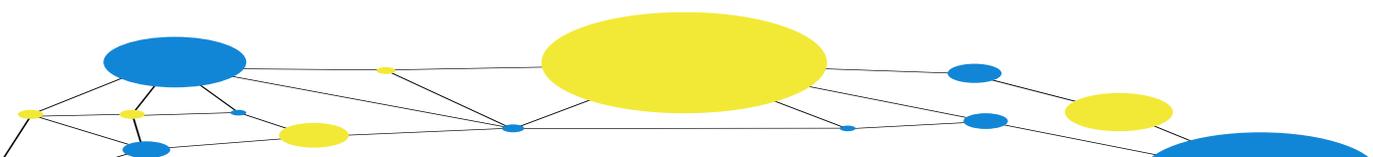
- What Are The Biggest Sources of Water Pollution? – <https://www.aquaread.com/what-are-the-biggest-sources-of-water-pollution/>
- What is Water Pollution? – <https://www.conserve-energy-future.com/sources-and-causes-of-water-pollution.php>
- Water Pollution: Everything You Need to Know – <https://www.nrdc.org/stories/water-pollution-everything-you-need-know>
- Jeremy Jackson: How we wrecked the ocean – [https://www.ted.com/talks/jeremy\\_jackson\\_how\\_we\\_wrecked\\_the\\_ocean](https://www.ted.com/talks/jeremy_jackson_how_we_wrecked_the_ocean)
- Cleaning Up After Pollution – <https://www.safewater.org/fact-sheets-1/2017/1/23/cleaning-up-after-pollution>

**Resources for Step 2:**

- What Is Microlearning: A Complete Guide For Beginners – <https://elearningindustry.com/what-is-microlearning-benefits-best-practices>
- Everything you wanted to know about microlearning (but were afraid to ask) – <https://www.efrontlearning.com/blog/2015/09/everything-you-wanted-to-know-about-micro-learning-but-were-afraid-to-ask.html>
- Micro-learning explained in two minutes – [https://www.youtube.com/watch?v=C\\_DklqFoHs](https://www.youtube.com/watch?v=C_DklqFoHs)
- A Complete Guide to Microlearning – <https://www.learnupon.com/blog/microlearning-intro/>
- The Essential Guide To Microlearning – <https://www.skillshub.com/wp-content/uploads/2017/10/Micro%20Learning%20Report.pdf>

**Resources for Step 3:**

- Microlearning Tools Offer Many Development Options – <https://www.ottolearn.com/microlearning/microlearning-tools>



- 321 Free Tools for Teachers - Free Educational Technology – <https://elearningindustry.com/321-free-tools-for-teachers-free-educational-technology>
- Free infographic maker – <https://www.canva.com/create/infographics/>
- How to Make an Infographic in 5 Steps (Guide) – <https://venngage.com/blog/how-to-make-an-infographic-in-5-steps/>

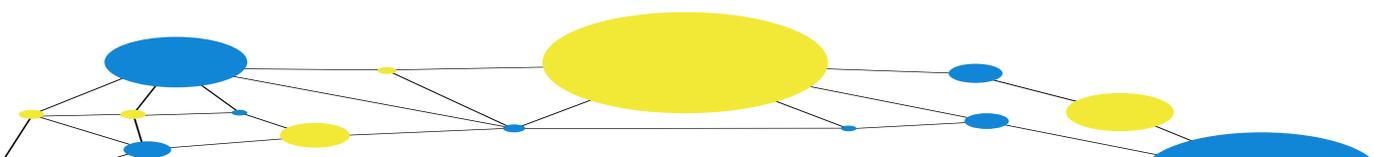
**Resources for Step 4:**

- Learning in Bursts: Microlearning with Social Media – <https://er.educause.edu/articles/2017/4/learning-in-bursts-microlearning-with-social-media>
- Micro-Learning Through Social Media: Education on the Go – <https://beyondcampus.com/microlearning/micro-learning-through-social-media-education-on-the-go/>
- What to Post on Social Media – 100 Post Ideas for 2020 – <https://www.angieensler.com/what-to-post-on-social-media/>
- The best times to post on social media in 2020 – <https://sproutsocial.com/insights/best-times-to-post-on-social-media/>

**EVALUATION** (self-evaluation, comparing and contrasting of what the learners have learned, giving feedback to the trainer on how they feel, what they have learned):

On completion of this WebQuest, young adults will have achieved the following learning outcomes:

Knowledge	Skills	Attitudes
<ul style="list-style-type: none"> <li>• Basic knowledge of water pollution.</li> <li>• Theoretical knowledge about types of water pollutants.</li> <li>• Theoretical knowledge about sources and effects of water pollution.</li> <li>• Theoretical knowledge about</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding the implications of new information for both current and future problem-solving and decision-making.</li> <li>• Use critical thinking skills to evaluate ideas.</li> <li>• List examples of microlearnings in everyday life.</li> </ul>	<ul style="list-style-type: none"> <li>• Awareness that the needs for the water in the present must not compromise the ability of future generations.</li> <li>• Increased regard for reducing their water footprint.</li> <li>• Openness for changing their</li> </ul>



<p>improving the quality of polluted water.</p> <ul style="list-style-type: none"> <li>• Factual knowledge of the characteristics of microlearnings.</li> <li>• Factual knowledge of microlearning format types.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate, select, and use digital tools to create short educational content on water pollution.</li> <li>• Promote educational content about water pollution on social media.</li> </ul>	<p>habits in saving water.</p> <ul style="list-style-type: none"> <li>• Openness to promoting awareness of water preservation.</li> <li>• Appreciation and acknowledgment of others' opinions.</li> <li>• Appreciation of working as part of a team.</li> <li>• Willingness to support local initiatives of water preservation.</li> </ul>
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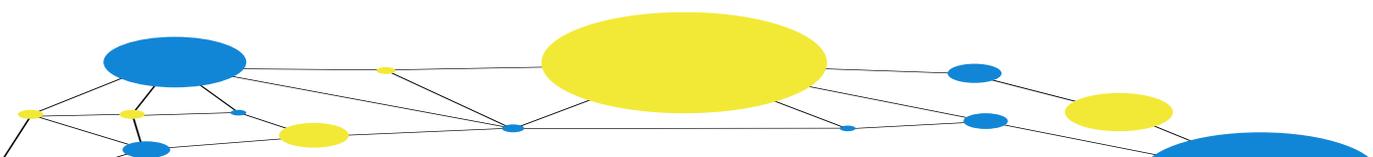
As part of the assessment of this WebQuest, all young people will be expected to create and post microlearning content about water pollution online. This will also help increase public awareness about water pollution and prevent its spread.

As a self- assessment exercise for this WebQuest, young people can complete a short self-reflection exercise, in writing and/or as a group discussion in class. The following questions will guide this self-assessment:

- Which of the suggested strategies, materials and ideas were the most useful for completing the task?
- Which of the suggested strategies, materials and ideas were not as useful for completing the task? Why?
- How did members of your group work together?
- How do you feel about learning in this way?
- Which competences did you develop – what new knowledge, skills and attitudes do you have?
- What did you like/dislike about the task?
- How did you feel about the task overall?

Questions that a parent or teacher might use to start a discussion with young people about the environment and to debrief this WebQuest:

- After learning more about water pollution, what behaviours should you start/stop doing?



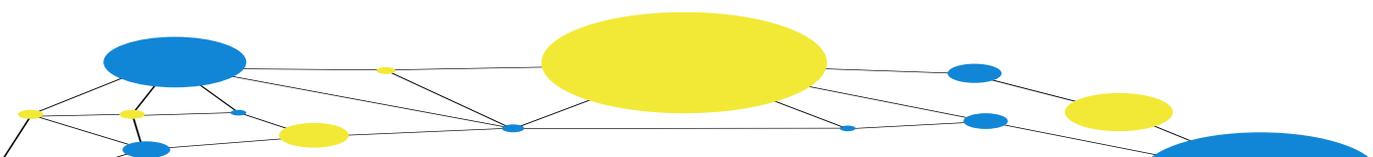
- Do you think the new information you got and competences you developed can be useful to you in the future? What for?
- Will you continue to promote knowledge about water pollution? How? Where?

**CONCLUSION** (provides an opportunity to summarise the experience, to encourage reflection about the process, to extend and generalise what was learned, or some combination of these. Suggest questions that a trainer might use in a whole class discussion to debrief a WebQuest):

Water is an essential part of everyday life. It is therefore critically important that water is kept safe and clean. There are many ways that we as individuals and as a community can prevent further pollution of the planet's water systems and – perhaps most importantly – start to reverse some of the damage that has already been done.

To tackle complex environmental issues like water pollution which are slow and difficult to reverse, we need to act on a larger, community level. To help in getting support in implementing good changes, we need to spread awareness of the issue – highlight the issue and educate people on it.

One way to reach a lot of community members at the same time is to use a concise and understandable educational format that does not require scientific experience to understand – microlarnings. With microlarnings, you can explain complex issues so that they are easier to understand. Keeping the local community involved will be an important part of developing a sustainable approach to water conservation.





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