

## The Integration of 21st Century Skills and Language Learning

### Online Global Issues and English Enhancement Course



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In aim of expanding students' ability to express their thoughts toward an issue, the course integrates 21<sup>st</sup>-century skills into language learning which helps to broaden the horizon and cultivate problem-solving skills.





### Language competence

Independent thinking

Reflective learning

## Problem-solving

The target of the class is to cultivate students' language competence, independent thinking, and problemsolving skills, so they can learn the language and think logically.



## What will they achieve?

- Express their opinion effectively.
- Develop perspectives when doing research.
- Brainstorm solutions for problems.
- Think reflectively after learning.

## Course Design

### **SDGs** Issues

The themes of the material come from UN Sustainable Development Goals (SDGs). Build a connection between the issue and everyday life, guiding students to think about the importance.

## **STEAM Education**

STEAM is an educational approach to learning that uses Science, Technology, Engineering, the Arts, and Mathematics. The course combines the skills of these areas to develop different points of view.

## Problem/project-Based Learning (PBL)

The course puts focus on developing students' problem-solving skills. They find out problems and discuss solutions and results.

### **Example of Lesson Plan**



#### Unit 1 Why Clean Water Matters

- Description: Learning how clean water affects a community, and brainstorming the solutions to improve water quality, are a means to associate students with the issue of clean water and sanitation. In this lesson, students will be introduced to the issue "clean water and sanitation," and will have to think about the ways to improve it.
- Objectives: 1. To learn vocabulary and expressions related to the topic 2. To cultivate knowledge regarding water sanitation
  - To brainstorm and discuss the idea of water sanitation, and express one's opinion using English
- Class time: 50 minutes
- Target level: Pre-intermediate
- Target issue: SDGs goal 6 Clean water and sanitation
- STEAM ideas: Science how water sanitation impacts humans and animals Engineering – how do we get clean and safe water

Lesson Sections	Activities	Time
Introduction	Introduce the topic to students.	1
Warm up	<ul> <li>Task: Picture Description</li> <li>Describe the pictures showing the two places that have different water qualities.</li> </ul>	4
Learning the issue	<ul> <li>Task 1: Video watching</li> <li>Introduce and watch a video about SDGs goal 6, clean water and sanitation.</li> <li>Task 2: Learning from the text and a general discussion</li> <li>Read the sentences from the video and answer the discussion questions to build the link between the real-world issue highlighted and our lives.</li> </ul>	15

Problem-solving	Main issue: How can we improve water quality?	25
task	Task 1: Think about the sources of water.	
	<ul> <li>Have students look up the sources of water on their own and guide them to talk about these sources.</li> </ul>	
	Task 2: List the factors that affect water quality.	
	<ul> <li>Have students look up the factors that affect water quality and guide them to talk about these factors.</li> </ul>	
	Task 3: Discuss solutions for reducing poor water	
	quality.	
	<ul> <li>Guide students to list one of the biggest problems that affect water quality. Then, discuss the possible solutions and the result.</li> </ul>	
Wrap up	Help students review and recap what they have learned by answering the questions regarding the material.	5

#### Materials

- 1. Course material
- 2. Introduction video of Clean Water and Sanitation

https://www.youtube.com/watch?v=qTX28qH5jT4&ab\_channel=Participate



## Learn Online PBL-Oriented Material



The lesson starts with a "picture description" activity to let students have a basic idea about the issue.

## The material is designed based on different real-life issues.

### **Get Ready**

- Task Describe what you see in the two pictures.
- 1. What do you see from the pictures?
- 2. Why is water important to humans' health?





### Learning the issue



## Move on to vocabulary learning and discussion.

### Watch introduction videos and read stories/texts to understand the issue.

Step 2 Read the sentences from the video and answer the discussion questions.

We need clean drinking water to stay healthy, running water to stay clean, and working toilet to dispose the waste.

dispose (v.): to get rid of something or throw something away

#### Extended question: What do we use water for?



#### **Problem-Solving**

#### Issue: How can we improve the water quality?

Billions of people around the world don't have access to safe and clean water. Even in developed countries, the water quality can be poor for various reasons. In this part, we will discuss how to improve water quality through the completion of the following three tasks:



Task 1 Think about the sources of water.

- Task 2 List the factors that affect water quality.
- Task 3 Discuss solutions for reducing poor water quality.

Opinions are expressed in a logical manner with the teacher's assistance.

In the problem-solving-based activity, students will gradually expand their ability to think deeply and analyze the issue.

Task 3 Discuss solutions for reducing poor water quality.

Many places around the world don't have access to clean and safe water. Let's think about the biggest problems and possible solutions regarding water quality.



## **Do Offline Activity Hands-on Project**

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### Hands-on Project Making a Basic Water Filter

After discussing the issue about clean water and sanitation, it's time to do a "hands-on" project! By following the instructions that will be given later, you will learn how to successfully make a basic water filter.

Hands-on projects match the theme of each unit to create different learning opportunities.





- Cut off the bottom part of the plastic bottle.
- Make a small hole in the center of the cap and place the upper part of the bottle upside down into the bottom cut part.
- 3. Stick your coffee filter through the hole at the center and down to the cap.

4. Add an inch of activated charcoal as the first layer.

- 5. Add about 3 inches of clean sand.
- 6. Add about 2 inches of gravel.
- 7. Finally, add the small rocks into the bottle.
- The filter is done. Now, add dirty water to the bottle and watch your dirty water come out filtered.

### Complete the task step by step and understand the theory at the same time.

### Discussion



- 1. What materials do you think are also suitable for a water filter?
- 2. In what situation do we filter water?
- 3. Do you know any technology or device that can recycle and reuse water?

# Share opinions and feedback after completing the project.



Generation is not the learning of facts, but the training of the mind to think.

- Albert Einstein

