





THEME ALLOCATED:	300 minutes
LEVEL:	Expert
TITLE OF THE WEBQUEST:	Food (Food waste and food loss)

INTRODUCTION (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):

You started working at a restaurant and you see a lot of costumers leaving the half-eaten meal in the plate which after that is thrown away. A lot of unused food that gets spoiled also ends up in the trash bin. After some weeks of working there you decided to open a discussion with your colleges and your boss. You want to discuss about how much food is wasted every day. Before throwing any food, we have to think about the hard work of the people who produced it, the people who don't have access to it or the lost natural resources. Wasting food is not only wasting money, but also water and it affects climate change.

After the discussion, you all came up with a conclusion that massive food waste is an issue that we all contribute to. You proposed that all of you think of a way on decreasing the amount of food leftovers. Also what can be done with all the food in order to stop food wasting at the restaurant.

TASKS (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):

After the discussion, everyone talked about the problems and proposed different ways on decreasing wasted food. You made a list of the most efficient and practical ideas.

The list:

- 1. Shop smart
- 2. Store food correctly
- 3. Learn to preserve
- 4. Save leftovers
- 5. Start to freeze more food
- 6. Compost if possible

You want to raise awareness about food waste among costumers but also with current





and future restaurant owners. You need to put all the ideas from the list into action and your plan number one is to start implementing it at the restaurant. You want to share the outcome with people by organizing an event, making a presentation, videos and creating posters. For this, you plan to use social media and online tools. This all will help people explore practical ways of wasting less food.

To do so, you need to follow the steps below in the process section.

PROCESS (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.

Step 1 – What is the difference between food waste and food loss?

A lot of food produced for human consumption is simply just thrown away, which causes significant impact on the environment. Waste occurs in all processes of production, cultivation, processing, distribution and consumption. Farmers, companies, restaurants, and consumers all together have responsibility for the extreme amount of wasted food.

There are two types of wasted food: food waste and food loss. You need to do an online research about the difference between food loss and food waste, gather information and put it all together in a PP presentation. (1 or 2 slides PP presentation)

Step 2 - Where does our wasted food go?

We need food to survive, right? Yet still in every corner of the world, food is wasted for different reasons and often in different circumstances. Lack of planning, the rhythm of life in big cities or an improvement in the economic conditions of businesses or individuals also contributes to wasting food. Most of us are not aware of where food actually ends up when it is thrown away. Nor do we know consequences of this action. Discarded food is sent to landfills, where it produces methane gas. Methane gas is the second most common greenhouse gas.

Did you know that so far, only less than half of the waste is recycled for producing biogas or compost? Using the links given below, you need to do an online research and learn more about this topic in order to continue to step 3. Add the information in the PP presentation that you started at step 1! (1 to 3 slides PP presentation)

Step 3 – What can be done to reduce food wasting?

Food is lost and wasted throughout the entire food supply chain, from initial agricultural production to final consumption at restaurants or at home. You already have a list of ways on how to reduce food wasting at the restaurant. Now you need to try and develop these ideas in order to make the restaurant a place where less food is thrown away. Review the resources below and expand the list by thinking of more practical ways. This will prepare





you for step 4.

Step 4 – How will you start the process of reducing food waste?

To begin with something is always hard, but you know – it's always the right time to start something new and trust the magic of new beginnings. Those beginnings that make the world a better place!

You are already on step 4 and so far your knowledge has grown and you have more ideas. Now it's time for action! What will be the first thing you can change at the restaurant? Making a smart grocery list? Storing food correctly? Think about the first and most important thing that should be done. Get some help from the resources bellow if you need. Show what you came up with by adding it into your PP presentation that you started at step 1! (1 to 3 slides PP presentation)

Step 5 – Food preservation techniques

Now it's time to try some food preservation techniques! Do you know why food preservation is important? Many fruits, vegetables and other foods are not available in every season, so civilized men adopted some techniques to keep them for later use. Food preservation keeps the food good for consuming without spoilage or decay. It also doesn't lose any nutrition! Food preservation makes the seasonal food available during the whole year and it helps brining variety in the diet. Restaurants especially, should adapt these techniques so they will decrease food waste and keep food for future days and offer different recipes. Now you have to do a research and give your ideas about some food preservation techniques that you will add to the PP presentation and finish it. (1 to 3 slides PP presentation)

Step 6 – Recycling inedible food

You learned a lot of things by now and it is time to get more creative!

First, do you know which food goes in the group of "inedible food"? Inedible food are products such as orange or apple peel, carrot leaves, eggshells and many roots. They can be used to feed the animals, for compost or even to get creative. Instead of throwing this inedible food, we can reuse it if we can or simply compost it. Composting is the production of a high-quality fertilizer (compost) from organic materials. Now you need to get your brain turned on and make a research about recycling inedible food and composting. You need to create a small project (check the links below to get some inspiration). You have to put it in a short video showing what you did and how you did it. You can use free online video making software for that (links in the resources section). After that, post it on your social media account(s).

Step 7 – Attracting and bringing people together

You already gathered a lot of information and you are ready to share it with other people. You want to organize an event where you can show your presentation and video.





However, attracting and bringing people together might be difficult. What can you do? You can create a poster that should be really creative so it can grab everyone's attention. Also, social media might be the best way nowadays, so use it smartly! Check the resources below for more help.

Step 8 – Raising awareness

No one is happy about throwing food, but, we, people buy food thinking we would eat it in a few days. Some restaurants are buying more food without paying attention on what is the most ordered food. We all are afraid that we won't have enough. So, it happens that, food stays for longer time and it goes bad.

How one can become more aware of food waste? What can you do to help people use food smartly? Beside using social media, can you think of an action? Try! In the links below, you can see more examples that may be inspirational.

RESOURCES For each step in the process, there should also be a series of links included (3-4 per step). These links should be fore 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 is food loss and food waste?

http://eschooltoday.com/global-food-waste-and-food-loss/what-is-food-waste.html https://furtherwithfood.org/what-is-food-loss-and-waste/

Video explaining food loss and food waste

https://www.youtube.com/watch?v=pxoz88-GXyk

Resources for Step 2:

Global food waste and its environmental impact

https://en.reset.org/knowledge/global-food-waste-and-its-environmental-impact-09122018

Where does our food go?

https://www.ft.com/content/09d28fda-98e4-11e5-9228-87e603d47bdc

Resources for Step 3:

Food loss and food waste at restaurants

http://www.fao.org/flw-in-fish-value-chains/value-chain/retail/restaurants-and-catering/en/

Ways of reducing food waste at home, school etc.

https://www.medicalnewstoday.com/articles/327325

> The hidden cost of restaurant food waste

http://telosirvoverde.com/blog/hidden-cost-restaurant-food-waste/





Resources for Step 4:

The struggle of a zero-waste restaurant

https://www.youtube.com/watch?v=Gj38m08QLoE

> Beyond the zero-waste restaurant

https://www.youtube.com/watch?v=56Y0TElkI90

How to reduce food waste at restaurants?

https://www.diegocoquillat.com/en/los-5-pilares-claves-para-reducir-el-desperdicio-de-alimentos-en-los-restaurantes/

Resources for Step 5:

Food preservation methods

https://www.youtube.com/watch?v=9fDEPotsZnA

Old fashioned ways of food preservation

https://blessedbeyondcrazy.com/5-old-fashioned-ways-to-preserve-food/

> Importance of food preservation

https://www.plantnat.com/importance-food-preservation/

Resources for Step 6:

What to do with inedible food waste?

https://www.zerowastelife.co.uk/our-blog-home/2019/9/17/inedible-food-waste-dont-bin-it

Things to do with eggshells

https://www.theprairiehomestead.com/2012/08/9-things-to-do-with-eggshells.html

Orange peel decoration

http://astutehomestead.blogspot.com/2013/11/diy-orange-peel-decoration.html

Video making

http://www.headliner.com/

http://www.canva.com/

Resources for Step 7:

Use social media to promote your event

https://www.socialmediaexaminer.com/use-social-media-to-promote-your-event/

Creating attractive posters

https://www.entrepreneur.com/article/233961

Online tools for creating posters

http://www.canva.com/

https://snappa.com/

Resources for Step 8:

Taking action on food waste





https://ivaluefood.com/resources/take-action/8-ways-to-take-action-on-food-waste/

Awareness of food waste can help us appreciate holiday meals https://theconversation.com/awareness-of-food-waste-can-help-us-appreciate-holiday-meals-105798

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
 Factual knowledge about food waste and what happens to it. Theoretical knowledge about different types of wasted food. Theoretical knowledge about food preservation and its importance. Factual knowledge about composting and recycling inedible food. Factual knowledge of how to attract people by using social media. Factual knowledge of how to create interesting content by using online tools. 	 Discuss the importance of food preservation and decreasing food waste. Recognise which food can be composted or preserved. Evaluate the worth of food leftovers for other use. Synthesize ideas to make a plan for reducing food waste. Apply online tools to create engaging content and reach people. Combine different techniques on reducing food waste. 	 Awareness of food waste and its impact on climate change. Awareness of food waste at restaurants. Appreciation of the hard work of people who produce food. Willingness to change personal habits in order to reduce food waste. Increased regard for the importance of composting food.

Through this WebQuest young adults will learn more about the importance of food in our





daily life. They will become more aware and start appreciating it. All the young adults are expected to show their PP presentation, their posters and videos in order to inspire other people and make them think more about the food they throw every day.

Beside learning more about reducing food waste, young adults will also improve their digital skills by using different online tools.

They will be asked to reflect on the following questions:

- 1) Did I enjoy the activity?
- 2) What did I learn about reducing food waste?
- 3) What did I learn about reusing inedible food and composting?
- 4) Did I learn how to create interesting content by using online tools?
- 5) Did I learn how to create videos?
- 6) Did I become more aware about food waste?
- 7) Can I inspire people to reduce food wasting?
- 8) Would I change something about this activity?

Questions that the teacher or parents may ask:

- 1) Can you implement what you learned in your daily life?
- 2) Do you think this activity can help you for a better future?
- 3) Can you use these online tools to create future projects?
- 4) Did you enjoy learning about this topic?
- 5) What do you think about the scenario?

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):

Around 1.3 billion tons of food are wasted every year in the world. How come we waste so much food? In poor countries, most of the waste is found on farms or on the way to the market. There, consumers waste very little food, because food is very valuable for them. However, in rich countries, especially the United States and Canada, about 40 percent of food waste comes from consumers.

Food waste has a big impact on climate. For example, it also wastes water and water is essential for life and, of course, for food production. Whether to irrigate crops, or to feed the animals that will provide us with meat, fish, milk or any other food.

Another impact are deforestation practices, especially in tropical areas where natural flora and fauna are destroyed. The same is happening in the sea. Many of the fish are rejected for not meeting certain standards or are damaged during transport. Then they





are discarded without thinking that it is affecting ecosystems. Before wasting food, we should reflect to realize not only the large amount of food that is despised in developed countries (while others are starving), but also all the effects that this phenomenon has on living beings and the environment.

Through this WebQuest you have become more aware about the bad habits that you might have and what can be done in order to change that and have better future. You learnt that whenever they can act, they must do it and make a change, no matter how small it is. Can you share this with your friends and family members? Will you start reusing the food leftovers at home? What about composting? Do you want to try it? If one day you become a restaurant owner, do you think it can be a good example of a zero food waste restaurant?

Now you know that every little good thing made for our environment is also good for ourselves.

