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Index

[Preface 4](#_Toc132806100)

[1. Sustainability, Climate Change And Carbon Footprint 5](#_Toc132806101)

[1.1 SUSTAINABILITY 7](#_Toc132806102)

[1.2 CLIMATE CHANGE 9](#_Toc132806103)

[1.3 CARBON FOOTPRINT 10](#_Toc132806104)

[2. Energy and sustainability. 12](#_Toc132806105)

[3. Water 18](#_Toc132806106)

[3.1 'Water - a resource threatening to become scarce' 18](#_Toc132806107)

[3.2 'Water pollution and water purification'. 20](#_Toc132806108)

[4. Waste 22](#_Toc132806109)

[4.1 Recycling Waste 22](#_Toc132806110)

[4.2 Circular economy and waste as new raw material 24](#_Toc132806111)

[5. RAW MATERIALS 26](#_Toc132806112)

[6. MANAGEMENT 30](#_Toc132806113)

# Preface

In front of you lies an extensive work of an enthusiastic team of experts that has taken a lot of effort, patience and time. In these learning materials on Sustainable salons we have tried to share our knowledge, expertise and first and foremost passion for a better and greener future for the hairdressing and beauty industry. In this preface you will learn more about how this work was developed and some useful tips on how to use it.

Within the project ‘Future Skills for a Better Life in Sustainable Salons’ 4 schools from Italy, Spain, Belgium and the Netherlands have worked on the learning materials together. Subject selection and division were motivated by the expertise of each school. The co-creation by 4 different organizations might have contributed to some differences in style and approach in the texts as well as assignments. We decided to leave it this way in order to preserve the original voice of every author and contributor to these materials. We, therefore, ask the reader’s understanding for any possible perceived lack of homogeneity and hope you can find this enriching.

We have chosen to divide the materials in **3 modules**: module 1 deals with the general concepts of sustainability and environment, module 2 considers the same aspects but within the context of a hairdresser salon or a hairdresser’s day-to-day operational practices. Module 3 is aimed at the salon manager(s) (students or apprentices) who concern themselves with the ins and outs of setting up and running a sustainable salon.

Each module consists of a Student manual which is meant for carrying out assignments provided by the teacher as well as self-study and knowledge deepening. In teacher’s manuals, lesson plans can be found and descriptions of the goals, subgoals and objectives of each lesson, the approximate learning situation, the setting and the expected outcomes. In the teacher’s toolkit manual the handouts, assignments, presentations, extracurricular activities and some module tests are included. We have made the materials far more extended than originally planned in terms of hours and coverage so that any teacher or instructor can draw from it as much as necessary.

The target group we had in mind while creating these materials is not only hairdresser students but also working hairdressing and beauty professionals and practically anyone who would like to deepen their knowledge of environmental issues and impact of hairdressing salons and activities on the environment. The materials are developed in such a way that they are adjustable to different schools’, organizations’ and students’ needs and learning situations: from a full-scale school subject to a minor or a project week. It is also up to the teacher to choose or create a way of testing the knowledge based on the extended materials from the current manuals (some examples are given in the teacher’s toolkit, for instance, in the ‘Energy’ section).

We truly hope you enjoy using these materials and find them helpful. We are happy to hear any questions, feedback or improvement suggestion from you!

Thank you very much in advance,

Warmly,

The Sustainable Salon Team

# Sustainability, Climate Change And Carbon Footprint

|  |
| --- |
| **General aim of the lesson**  By the end of this lesson students will be aware of the concept “sustainability”. |
| **Learning Outcomes**  By the end of the lesson all students will be able to:  **Knowledge**   * give a definition on sustainability as a consumer, but also as an entrepreneur * explain when a salon is sustainable or not * understand a standard system for environmental care * know the principles of the PDCA-circle * define what climate change means * explain why our planet is unhealthy * explain why climate conferences are important * define the sustainable development goals * name the 3 key elements of the Paris Agreement * give a definition for carbon footprint * explain the use of the consumer footprint calculator   **Skills**   * give examples of being sustainable as a hairdresser * make a list of actions to become more sustainable at home * communicate with sustainable salons * make a presentation on a salon focussing on sustainability * use different scans on sustainability * process the results of the scans on sustainability * implement the principles of the PDCA-circle in a short and long term plan * give consequences of climate change * give evidences of climate change * give examples of the most important goals of the climate conferences * link sustainable development goals to a sustainable salon * calculate your own carbon footprint * reduce their own carbon footprint * start up a campaign (poster, flyer) to make hairdressers aware of the impact of their carbon footprint and how to be as sustainable as possible   **Attitudes**   * Group discussion to share ideas and thoughts, awareness * Evaluate outcomes * Corner work * Creativity * Interviewing skills * Communication * Use of ICT * Awareness on sustainability, climate change and carbon footprint |
| **Additional Learning Outcomes**  Here you can describe extra competences in terms of knowledge, skills and attitudes, as some students have a different work tempo or level of comprehension. It can also be applied to make a difference between the different VET levels of learning.  By the end of the lesson some students *will* be able to:   * *\*understand quotes on sustainability* * *\*name the different work stations in a salon* * *\*give ways of recycling salon waste by using a website* * *\*recognising eco-friendly actions taken in a salon* * *\*give sustainable modifications for the different processes in a salon* * *\*make clear visuals of the results* * *\*compare the results to one another*   By the end of the lesson  some students *may* be able to:   * *\*give standards a salon must comply to to be considered sustainable* * *\*thinking in a sustainable way as a hairdresser (pollution, customers, services, costs)* * *\*put goals and short and long term plans into an advice to email to users of the scans* |
| **Activities**  Assignment p. 7: What do you think “sustainability” means being a hairdresser? Write down words or short sentences in a wordweb.  Assignment p. 7: Would you be able to give a definition to the word “sustainability”? Write it down in your own words.  Assignment p. 10: Make a list of actions you can use to become more sustainable at home.Students can use the text in the student’s manual or the Internet or their own knowledge.  Assignment p 10: Work in pairs. Find a salon that is working in a sustainable way. Take an interview of 10 questions focussing on sustainability. Make a presentation of the information you got on sustainability from the interview. Present the presentation to the classroom.  Assignment p. 12: We will divide in 3 groups to take the scans and process the results.   * First group: You will take the awareness scan from 5 different teachers at 3 different hairdressing schools. You keep a good record of the results of the scans to create a clear overview in charts later. * Second group: You will take the awareness scan in 15 different salons, preferably across the country. You keep a good record of the results of the scans to create a clear overview in charts later. * First group + second group: You will take the extended scan in 5 different salons, depending on the need and the results of the awareness scan. * Third group: You will take the scan on organization context of a sustainable salon from 5 recently opened businesses (up to 1 year) and 5 salons that are already open for more than 1 year, but less than 5 years and 5 salons that are open for more than 5 years.     Assignment p. 13: We divide into two groups.   * Group 1: Make up a short term plan to achieve the goals set in the discussion. * Group 2: Make up a long term plan to achieve the goals set in the discussion.   Use the template in the teacher’s toolkit, including the PDCA-principles.  Assignment p. 14: Look at the picture. Give a concrete example for the given changes. Fill in the grid from the teacher’s toolkit.  Assignment p. 20: Read the article  by clicking on the link <https://www.theactuary.com/features/2021/10/07/unhealthy-planet-unhealthy-people> or ask your teacher to get the text on paper. Answer the questions on the sheet.  Assignment p. 23: Check the website: <https://www.un.org/en/climatechange/paris-agreement> and name the 3 key elements of the Paris Agreement.  Assignment p. 24: Look at the small video on YouTube and answer the key questions on the sheet you’ll find in the teacher’s toolkit. <https://www.youtube.com/watch?v=b6qPnu82OVU>  Assignment p. 27: How big is your carbon footprint  and what can you do to improve it? Underneath there are different tests you can do on the internet.   * <https://footprint.wwf.org.uk/#/> * <https://eplca.jrc.ec.europa.eu/ConsumerFootprint.html> * <https://www.nature.org/en-us/get-involved/how-to-help/carbon-footprint-calculator/> * <https://footprintcalculator.henkel.com/en>   Assignment p. 29: Let’s finish of this chapter with a creative assignment. You will work in pairs.  You will start up a campaign (poster, flyer) to make hairdressers aware of the impact of their carbon footprint and how to be as sustainable as possible. Make sure you tick of all the criteria given on the evaluation form in the teacher’s toolkit. |

**Time schedule per lesson of 60 minutes:**

## SUSTAINABILITY

|  |  |  |  |
| --- | --- | --- | --- |
| **Time** | **What** | **How** | **Media used – teachers resource kit** |
| **LESSON 1** | | | |
| 10  5  5  5  15    20 | 1. Sustainability  1.1. The concept: What does “sustainability” mean?    1.2. When are you sustainable? | * Assignment: Brainstorm on the concept “sustainability” * Reading the text under 1.1. * Defining a definition * Reading the text under 1.2. * Assignment: Making a list of actions to become more sustainable at home * Assignment: Finding a sustainable salon + preparing an interview | * White board * Post-its * Student’s manual * PowerPoint * Assignment papers * Computer/laptop * Cell phone or telephone |
| **LESSON 2** | | | |
| 60 | 1.2. When are you sustainable? | * Assignment: Interview + preparing a presentation on the sustainable salon | * Assignment papers * Computer/laptop * Cell phone or telephone |
| **LESSON 3** | | | |
| 60 | 1.2. When are you sustainable? | * Assignment: Presenting the different sustainable salons | * Computer/laptop * Beamer * Assignment papers |
| **LESSON 4** | | | |
| 5  10  10  10    25 | 1.3. Scans on sustainability | * Reading the text under 1.3. * Looking at the 2 awareness tools for school and salon * Looking at the extended tool * Looking at the tool on the organization aspects on environment * Assignment in different groups: organization of the assignment - group forming + arrangement (dates, contact information, …) | * Student’s manual * PowerPoint * Tools online * Assignment papers * Computer/laptop * Cell phone or telephone |
| **LESSON 5** | | | |
| 60 | 1.3. Scans on sustainability | * Presenting the results of the different scans * Formulating a conclusion | * Computer/laptop * Beamer * Assignment papers |
| **LESSON 6** | | | |
| 5  30  25 | 1.3. Scans on sustainability  Evaluation on “Sustainability” | * Reading text on the PDCA-circle * Assignment in groups * Test on sustainability | * Student’s manual * PowerPoint * Assignment papers * Test |

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| --- |
| **Teachers Evaluation of the lesson**   * Process evaluation; how did it go?   ……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………   * Product evaluation; do the students master the content? Did they learn what it is about?   …………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………… |

**Time schedule per lesson of 60 minutes:**

## 1.2 CLIMATE CHANGE

|  |  |  |  |
| --- | --- | --- | --- |
| **Time** | **What** | **How** | **Media used – teachers resource kit** |
| **LESSON 1** | | | |
| 5  20  35 | 2. Climate change    2.1. Definition  2.2. Unhealthy planet | * Reading the text under 2. * Assignment: Giving concrete examples for the given changes * Reading the text under 2.1. and 2.2 | * Student’s manual * PowerPoint * Assignment papers * Computer/laptop |
| **LESSON 2** | | | |
| 20  15  5  20 | 2.2. Unhealthy planet  2.3. Climate conferences and sustainable development goals | * Assignment: Reading an article and answering questions * Reading the text under 2.3. * Assignment: Giving the 3 key elements of the Paris Agreement * Assignment: watching a video on YouTube and answering the key questions | * Student’s manual * PowerPoint * Assignment papers * Computer/laptop * Connection to YouTube |
| **LESSON 3** | | | |
| 15    45 | 2.3. Climate conferences and sustainable development goals  Evaluation on “Climate change” | * Assignment: watching a video on YouTube and answering the key questions * Test | * Student’s manual * PowerPoint * Assignment papers * Computer/laptop * Connection to YouTube * Test |

|  |
| --- |
| **Teachers Evaluation of the lesson**   * Process evaluation; how did it go?   ……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………   * Product evaluation; do the students master the content? Did they learn what it is about?   …………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………… |

**Time schedule per lesson of 60 minutes:**

## 1.3 CARBON FOOTPRINT

|  |  |  |  |
| --- | --- | --- | --- |
| **Time** | **What** | **How** | **Media used – teachers resource kit** |
| **LESSON 1** | | | |
| 20  20  20 | 3. Carbon footprint  3.1. Definition  3.2. The Consumer Footprint Calculator (general) | * Reading the text under 3. * Reading the text under 3.1. * Reading the text under 3.2. | * Student’s  manual * PowerPoint * Computer/laptop |
| **LESSON 2** | | | |
| 30    10  20 | 3.2. The Consumer Footprint Calculator (general)  3.3. How to reduce your personal carbon footprint? | * Assignment: Measuring your own carbon footprint by taking different online tests * Reading the text under 3.3. * Assignment: Creating an awareness campaign | * Student’s  manual * PowerPoint * Computer/laptop * Tests online * Paper in different colors * Glue * Scissors * Pencils and markers * Computer program to create a poster or flyer digitally |
| **LESSON 3** | | | |
| 40    20 | 3.3. How to reduce your personal carbon footprint?  Evaluation on “Carbon footprint” | * Assignment: Creating an awareness campaign + presenting it * Test | * Paper in different colors * Glue * Scissors * Pencils and markers * Computer program to create a poster or flyer digitally |

|  |
| --- |
| **Teachers Evaluation of the lesson**   * Process evaluation; how did it go?   ……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………   * Product evaluation; do the students master the content? Did they learn what it is about?   …………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………… |

# Energy and sustainability.

**OBJECTIVES OF THE LESSON**

The aim of this topic is mainly for students to learn what energy is, where it comes from, how it is produced and what its environmental impact is so that they can make conscious decisions in their hairdressing salon.

In addition to this manual, two other manuals are available:

* The teacher's resource kit, where you will find activities, PowerPoint presentations and other tools to use in the classroom.
* The student handbook, in which they have all the information to prepare in advance or to use during the classes.

|  |
| --- |
| **General objective of the lesson**  To know what energy is and its environmental impact. |
| **Knowledge**   * Explain what energy is and its types. * Identify energy sources. * Distinguish between renewable and non-renewable energies. * To understand the environmental impact of energy. * Explain what clean energy is.   **Ability**   * Describe the energy used in the hairdressing salon. * Recognise and assess the feasibility of using clean energy in the classroom. * Calculate the energy consumption of a room. * Group discussion to share ideas and reflections, evaluating results.   **Attitude**   * Be aware of the need to choose clean energy. * Propose ways to reduce energy consumption. * Evaluate outcomes. |
| **Additional learning outcomes**  Additional competences in terms of knowledge, skills and attitudes are captured here, as some learners have a different pace of work or level of understanding. It can also be applied to differentiate between different levels of VET learning.  By the end of the topic, higher ability learners should be able to:   * To learn about various sources of clean energy applicable to the hairdressing salon. * Investigate clean energy suppliers that can supply the hairdressing salon.   By the end of the topic, lower ability students should be able to:   * To know what energies are and which ones are applied in the hairdressing salon. * Understand that energy use has a high environmental impact. |

**PROGRAMMING AND TIMING OF THE LESSON**

In this lesson we focus on energy, its types, forms of production and uses in the classroom.

**Total hours** = 10-15h.

The programming has been carried out considering that each session is of one hour, however the material is adjusted to 50 min. to allow the initial reception of the students and the recapitulation of activities developed at the end.

**Purpose of the lesson:**

* Students should know what energy is.
* Students to distinguish the types of energy.
* Students to recognize clean energies.
* Knowledge about the environmental impact of energy use.

**Planning:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Approximate scheduled time (total hours 10-15h = 10-15 sessions of 1 hour)** | | **What** | **How** | **Tools** |
| Session 1 | 10 min. | Introductory video | Video viewing 1. Refer to the teacher's resource kit. | Projector, digital whiteboard or computers. |
| 40 min. | Theory:  General concept of energy and its properties, types of energy and electrical energy. | Teacher's presentation. | Power-point. See the teacher's resource kit.  Whiteboard and projector or digital whiteboard. |
| Session 2 | 10 min. | Activity 1 | Students work in pairs to solve activity number 1. | Pair activity by completing the activity sheet. See the teacher's resource kit. |
| 15 min. | Discussion on activity 1: students report their findings to the group and discuss their truth or accuracy. | Student-centered. Teacher guides and corrects at the end. | Blackboard. |
| 15 min. | Activity 2 | Students work on a one-to-one basis. | The teacher can provide different locations or leave it up to the students to decide. |
| 10 min. | Sharing of activity 2 | Students present their findings. |  |
| **Approximate scheduled time (total hours 10-15h = 10-15 sessions of 1 hour)** | | **What** | **How** | **Tools** |
| Session 3 | 40 min. | Theory:  Concepts of energy sources. | Teacher's presentation. | Power-point. See the teacher's resource kit.  Whiteboard and projector or digital whiteboard. |
| 10 min. | Videos on renewable and non-renewable energy sources. | Watch videos 2 and 3. See the teacher's resource kit. | Projector, digital whiteboard or computers. |
| 5 min. | Video on blue energy. | Video viewing 4. See teacher's resource kit. | Projector, digital whiteboard or computers. |
| Session 4 | 15 min. | Activity 3 | Students work on a one-to-one basis. | Computer or telephone. |
| 15 min. | Sharing of activity 3 | Students present their findings and discuss the importance of fossil fuels. | The teacher guides the discussion by proposing questions on fuel applications and possible alternatives. |
| 20 min. | Activity 4 | Students work on a one-to-one basis. | Computer or telephone. |
| **Approximate scheduled time (total hours 10-15h = 10-15 sessions of 1 hour)** | | **What** | **How** | **Tools** |
| Session 5 | 50 min. | Sharing of activity 4 | Students present their findings and discuss energy use. | The teacher guides the discussion by proposing questions about the different energies and their options for use in the classroom. |
| Session 6 | 10 min. | Video on energy and the environment. | Video viewing 5. Refer to the teacher's resource kit. | Projector, digital whiteboard or computers. |
| 40 min. | Theory:  Concepts on the environmental impact of energy and clean energy. | Teacher's presentation. | Power-point. See the teacher's resource kit.  Whiteboard and projector or digital whiteboard. |
| **Approximate scheduled time (total hours 10-15h = 10-15 sessions of 1 hour)** | | **What** | **How** | **Tools** |
| Session 7 | 5 min | Video on energy and the environment. | Video viewing 6. Refer to the teacher's resource kit. | Projector, digital whiteboard or computers. |
| 45 min. | Activity 5 | Students work on a one-to-one basis. | Computer or telephone. |
| Session 8 | 35 min. | Sharing of activity 3 | Students present their findings and discuss the importance of fossil fuels. | The teacher guides the discussion by proposing questions on different energies and encouraging debate on nuclear energy. |
| 15 min. | Video on nuclear energy | Video viewing 7. Refer to the teacher's resource kit. | Projector, digital whiteboard or computers. |
| **Approximate scheduled time (total hours 10-15h = 10-15 sessions of 1 hour)** | | **What** | **How** | **Tools** |
| Session 9 | 30 min. | Activity 6 | Students work on a one-to-one basis. | Computer or telephone. |
| 20 min. | Sharing | The teacher asks the students the meaning of each of the terms and clarifies doubts or expands on the information. |  |
| Session 10 | 20 min | Video on energy and the environment. | Video viewing 8. Refer to the teacher's resource kit. | Projector, digital whiteboard or computers. |
| 30 min. | Theory:  Concepts on the effects of energy on the environment. | Teacher's presentation. | Power-point. See the teacher's resource kit.  Whiteboard and projector or digital whiteboard. |
| **Approximate scheduled time (total hours 10-15h = 10-15 sessions of 1 hour)** | | **What** | **How** | **Tools** |
| Sessions 11 and 12 | 100 min. | Activity 7 | Students work on a one-to-one basis. | Computer or telephone. |
| Session 13 | 30 min. | Activity 8 | Students work in groups. | Computer or telephone. |
| 20 min. | Sharing | The actions are outlined and a complete checklist is generated. | Computer and digital whiteboard. |
| Session 14 | 50 min. | Theoretical test | Students respond to the questions posed. | Paper or Google Form. |

# Water

Water:

**Lesson 1**

## 3.1 'Water - a resource threatening to become scarce'

* Facts and figures
* Water - resource threatening to become scarce
* How can we save water with simple steps

**Lesson 2 'Water pollution and water purification'**

* Water pollution in general. Ocean clean-up project
* Waste water purification: who does it and how it happens

**Introduction Lesson 1**

In this lesson we focus on: **'Water - a resource threatening to become scarce'**.

* Total contact hours = 1

Beginning situation: this class is meant for students with no or minimum basic understanding and skills about water management and water saving in and around a beauty salon.

General goal: for students to gather knowledge on water management and to be conscious about the threat of this resource and how we can save water in simple steps. Also to get familiar with water pollution, the ocean clean-up project and waste water purification.

Objectives of the lesson:

* for students to be able to look at the resource water and to get familiar with the problems around the threat that water becomes scarce
* For students to know facts and figures about the threat of water becoming scarce
* For students to have knowledge on how we can save water with simple steps, water pollution (Ocean clean-up project) and purification

**Lesson Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Time scheduled**  **(total 1 hour = 60 minutes)** | **What** | **How** | **Media used** |
| 5 minutes | Regular student registration  Theme introduction: Water: a resource threatening to become scarce. | Teacher does the registration and introduces the subject + objectives | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) |
| 10 minutes | Group activity to talk about the threat. The main question is: ‘what do you think is the cause of the threat?’ | Students to talk about the subject with the main question as a focus  Teacher: sharing ideas of what can cause the threat with facts and figures | Group discussion   * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) |
| 10 minutes | Explanation about saving water with simple steps and why should we? | Student focused  Teacher present the information | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) |
| 10 minutes | Water pollution causes, Ocean clean-up project, preventing | Student watching YouTube clip and listening to presentation from the teacher | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) |
| 20 minutes | Activity | Students working in pairs to answer the following question: ‘what do you see as one of the major risk for water pollution in your region? And in hairdressing? Which of the 4 causes presented earlier belongs this risk to? Students are writing down their findings in their device and presents them in the last 10 minutes | Activity in pairs. Please refer to teachers resource kit.   * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) * Device (students) |
| 5 minutes | Self-study explained  Recap led to next week and answering the questions | As self-study assignment the students are going to read about water purification and study the principles of water purification by the award-winning company Hydraloop | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) * Information about water purification to give to the students (digital) |

**Resources:**

Video water pollution: [https://youtu.be/Om42Lppkd9w](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fyoutu.be%2FOm42Lppkd9w&data=05%7C01%7Cg.chalapko%40rocva.nl%7C11eb1de2c5ca4a316a5908da8b5b934d%7Cc908cc46554c4131865345522e68e291%7C0%7C0%7C637975523418281846%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C2000%7C%7C%7C&sdata=WgLI60P5mVGqxoMvUG3aJMGLP5OWc3ng4XAKgLa9NdQ%3D&reserved=0)

<https://theoceancleanup.com/>

<https://www.hydraloop.com/>

<https://www.nrdc.org/stories/water-pollution-everything-you-need-know#whatis>

[Worldwide water shortage by 2040 -- ScienceDaily](https://www.sciencedaily.com/releases/2014/07/140729093112.htm)

[Shortages: Water supplies in crisis - BBC News](https://www.bbc.com/news/science-environment-18353963)

<https://thelastwell.org/2019/04/eye-opening-facts-about-the-water-crisis-inafrica/>

**Introduction Lesson 2**

In this lesson we focus on:

## 3.2 'Water pollution and water purification'.

* Total contact hours = 1

Beginning situation: this class is meant for students with basic understanding and skills about water management and water saving in and around a beauty salon. This class elaborates on the first lesson.

General goal: for students to gather knowledge on purification of waste water.

Objectives of the lesson:

* For students to understand the concept purification
* For students to experiment with filtering water

**Lesson Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Time scheduled**  **(total 1 hour = 60 minutes)** | **What** | **How** | **Media used** |
| 10 minutes | Regular student registration  Theme introduction: water purification and filtering | Teacher does the registration and introduces the subject + objectives with facts and figures and asks about the self-study assignment | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) |
| 5 minutes | Explanation experiment | Students focused  Teacher present the information | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) |
| 30 minutes | Experiment water filtering | Teacher gives students waste water (sand, gravel, color) + filters. Students experiment with filtering the waste water 3 times in different sample tubes and write down their findings of the experiment | * Sand, coffee filter, gravel, waste water after coloring hair, sample tubes, funnel |
| 10 minutes | Aftertalk experiment | Students present their findings  Teacher is asking questions and answering them |  |
| 5 minutes | Recap led to next week and answering the questions | Students ask questions to gain more knowledge | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) |

**Resources:**

<https://www.hydraloop.com/>

<https://www.plasticsoupfoundation.org/>

# Waste

**Introduction Lesson**  3

I In this lesson we focus on

## 4.1 Recycling Waste

* Total contact hours = 1

Beginning situation: this class is meant for students with no or minimum basic understanding and skills about waste, recycling and microplastics.

General goal: for students to gather knowledge on waste and recycling and to be conscious about the threat of microplastics. Also to get familiar with circular economy.

Objectives of the lesson:

* For students to understand the concept of recycling and the threat of waste
* For students to have knowledge on the benefits of reusing and recycling
* For students to have knowledge of waste management

**Lesson Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Time scheduled**  **(total 1 hour = 60 minutes)** | **What** | **How** | **Media used** |
| 5 minutes | Regular student registration  Theme introduction: Reducing waste | Teacher does the registration and introduces the subject + objectives | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) |
| 10 minutes | Group activity for students to think about types of waste that we can reduce the usage by searching fact and figures on the internet | Students to work in small groups (3/4). Students write down their findings on their device  Teacher is leading the aftertalk | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) * Device (student) |
| 10 minutes | Explanation why waste is a growing problem. Reduce, reuse and recyling and how to do it wisely | Student focused  Teacher present the information | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) |
| 7 minutes video  3 minutes aftertalk | Kenya dump dwellers recyling hair extensions  YouTube video  Making the connection with circular economy | Student watching clip, writing down notes  Teacher making the connection with circular economy | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) * Device (student) |
| 20 minutes | Activity beat the microplastics | Students work in pairs to check through the microplastic app how much microplastic is in the products they have on them right now. Students write down their findings on their device | Activity in pairs working with the microplastic app   * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) * Device (student) |
| 5 minutes | Recap led to next week and answering the questions | Students ask questions to gain more knowledge | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) |

**Resources:**

YouTube video: <https://youtu.be/tCbFl9UHQh4>

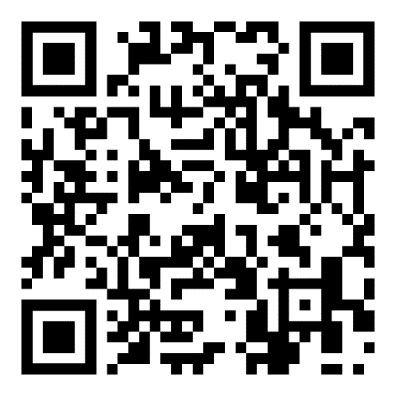
<https://datatopics.worldbank.org/what-a-waste/trends_in_solid_waste_management.html>]

<https://ec.europa.eu/eurostat/web/waste>

<https://thinkbigactnow.org/en/what-is-hidden-impact/>

<https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>

<https://www.beatthemicrobead.org/download-btmb-app/> or scan the Qr-code

**Introduction Lesson 4**

In this lesson we focus on

## 4.2 Circular economy and waste as new raw material

* Total contact hours = 1

Beginning situation: this class is meant for students with basic understanding and skills about waste, recycling and microplastics.

General goal: for students to gather knowledge on circular economy and to get familiar with using waste as new material.

Objectives of the lesson:

* Getting acquainted with concept of circular economy
* Getting acquainted with waste as a new raw material
* Experiment with recycling paper

**Lesson Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Time scheduled**  **(total 1 hour = 60 minutes)** | **What** | **How** | **Media used** |
| 5 minutes | Regular student registration  Theme introduction: circular economy and  waste as a new raw material | Teacher does the registration and introduces the subject + objectives | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) |
| 10 minutes | Explanation about circular economy and waste as a new raw material | Students are focused  Teacher present the information | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) |
| 40 minutes | Experiment recycling paper  Short video for inspiration | Students focused on the short video.  Students make the used paper and carton in tiny pieces in groups of 4.  All the tiny pieces are going in the blender together with water to make pulp.  With the ice-cream sticks they make a frame and glue the thin fabric on top of it.  Put the pulp in water. Put the frame in the water to spread the pulp on top of it and let most of the water drip out.  Let it dry for a few hours in the sun or next to a heater. See the result. New paper. | * Blender, carton or used paper, water, icecream sticks, glue, rolling pin, old thin fabric, water bucket * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) |
| 5 minutes | Recap what we did this lesson and answering the questions | Students ask questions to gain more knowledge | * PowerPoint. (please refer to the teachers resource kit) * White board or digiboard * Laptop (teacher) |

**Resources:**

Short video paper recycling: <https://youtube.com/shorts/8LsVgiIupII?feature=share>

<https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>

# RAW MATERIALS

1. **Goals-Subgoals-Objectives**

The first objective of the module is to make known the meaning of “raw material", not necessarily linked to the professional sector of well-being, knowing how to distinguish between the different types classified according to the different sources of extraction or production and thinking about any problems related to the environmental impact that each produce.

The second step and objective is to introduce the presence of raw materials in the objects present and used in a beauty salon to make the operators, who have already acquired the concepts related to the primary objective described above, aware of what they decide to buy or use for their professional activity.

In addition to this manual, two other manuals are available:

* The teacher's resource kit, where you will find activities, links and other tools to use in the classroom.
* The student handbook, in which they have all the information to prepare in advance or to use during the classes.

1. **Starting situation and timetable**

It is supposed to start from a situation where you are not aware of any concept related to the theme of raw materials. Thus, the work could be structured as follows:

**Lesson 1 (50 min)**

* Definitions and classification (objective 1)
* Activities

**Lesson 2 (50 min)**

* Water as raw material (objective 1)
* Activities

**Lesson 3 (50 min)**

* Raw materials in products and equipment: where is what (objective 2)
* Activities

It may be necessary, depending on the learning speed of the learners, to divide Lesson 2 in two to give the right space to activities that allow awareness and to acquire, with practice and personal research, the contents.

1. **LESSON 1 – Lesson plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Approximate scheduled time (tot = 50 min)** | **What** | **How** | **Tools** |
| 10 min | Introduction and presentation of the main goals of the lesson | Write down a mind map on the board by teacher | Digital board  Laptop (teacher)  Video (refer to the Resource Kit)  Students Workbook (paper or digital) |
| 5 min | introductory video: “Raw materials. Why do they matter?” | Video viewing | Video (refer to the Resource Kit) |
| 15 min | Thinking activation | Students brain storming starting from teacher’ suggested questions | Questions you find on Textbook or additional question (refer to the resource Kit)  Digital board (if needed) |
| 15 min | General concept about different types of raw material | Teacher’s presentation | Digital board  Laptop (teacher)  Presentation built using the proposed material (refer to the Resource Kit)  Students Workbook (paper or digital) |
| 5 min | Closure of the lesson | Student Activity 1 | Digital board  Students Workbook (paper or digital) |

1. **LESSON 2 – Lesson plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Approximate scheduled time (tot = 50 min)** | **What** | **How** | **Tools** |
| 10 min | Introduction and presentation of the main goals of the lesson | Write down a mind map on the board by teacher | Digital board  Laptop (teacher)  Video (refer to the Resource Kit)  Students Workbook (paper or digital) |
| 5 min | Calculate students personal water footprint | Use the online calculator suggested in Resource Kit | Digital Board  Students personal electronic device to access the online calculator |
| 15 min | Thinking activation | Students brain storming starting from teacher’ suggested questions | Questions you finf on Textbook ora additional question (refer to the resource Kit)  Digital board (if needed) |
| 15 min | General concept about water as a raw material | Teacher’s presentation | Digital board  Laptop (teacher)  Presentation built using the proposed material (refer to the Resource Kit)  Students Workbook (paper or digital) |
| 5 min | Closure of the lesson | Student Activity 1 | Digital board  Students Workbook (paper or digital) |

1. **LESSON 3 – Lesson plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Approximate scheduled time (tot = 50 min)** | **What** | **How** | **Tools** |
| 5 min | Introduction and presentation of the main goals of the lesson | Write down a mind map on the board by teacher | Digital board  Laptop (teacher)  Video (refer to the Resource Kit)  Students Workbook (paper or digital) |
| 15 min | General concept about water as a raw material | Teacher’s presentation | Digital board  Laptop (teacher)  Presentation built using the proposed material (refer to the Resource Kit)  Students Workbook (paper or digital) |
| 25 min | Research about specific raw material in furniture, equipment or cosmetics products | Refer to proposed Activity 2 on this book | Students Workbook (paper or digital)  Digital devices or PC to access Internet |
| 5 min | Closure of the lesson | Student Activity 1 | Digital board  Students Workbook (paper or digital) |

Immagine che contiene testo, cartello, clipart

Descrizione generata automaticamente

For the proposed **Activity 1** students are suggested to use an App like “Mural” to create two different mind maps. Here’s some useful tutorials:

About how to build a mind-map

<https://www.youtube.com/watch?v=xCyjFipytRE>

About using Mural

<https://support.mural.co/en/articles/6672185-how-to-use-mural-your-quickstart-guide>

Mural alternatives

MIRO - <https://miro.com/mind-map/>

CANVA - <https://www.canva.com/graphs/mind-maps/>

**More activities** you must propose to students may be:

**Activity 2 -** Research and analysis of a particular raw material: Assign students a raw material, such as copper or plastic, and have them research its uses, sources, and challenges related to ensuring its sustainable use. Students could present their findings in a written report or a multimedia presentation.

**Activity 3 -** Sustainable product design: Ask students to design a product that uses raw materials in a sustainable way. This could involve upcycling or repurposing materials, using sustainable alternatives, or making products that are designed for recyclability or reuse. Students could create prototypes of their products and present them to the class along with an analysis of their sustainability features.

# MANAGEMENT

1. **Goals-Subgoals-Objectives**

The main objective of the module is to provide the basic notions related to business and management concepts and to present the function and tasks of a business manager.

The second step is to know how to distinguish between the figure and the functions of the owner and the business manager being aware that, sometimes, do not coincide within a company.

In addition to this manual, two other manuals are available:

* The teacher's resource kit, where you will find activities, links and other tools to use in the classroom.
* The student handbook, in which they have all the information to prepare in advance or to use during the classes.

1. **Starting situation and timetable**

It is supposed to start from a situation where you are not aware of any concept related to the theme of business and management. Thus, the work could be structured as follows:

**Lesson 1 (50 min)**

* General know-how about business and management (objective 1)
* Activity 1

**Lesson 2 (50 min)**

* Management activities in a hair and beauty salon (objective 2)
* Activity 2

1. **LESSON 1 – Lesson plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Approximate scheduled time (tot = 50 min)** | **What** | **How** | **Tools** |
| 5 min | Introduction and presentation of the main goals of the lesson | Write down a mind map on the board by teacher | Digital board  Laptop (teacher)  Video (refer to the Resource Kit)  Students Workbook (paper or digital) |
| 5 min | Introductory video: “Business Administration in 2 Minutes” | Video viewing | Video (refer to the Resource Kit) |
| 20 min | General concept about what business and management are | Teacher’s presentation | Digital board  Laptop (teacher)  Presentation created by teacher  Students Workbook (paper or digital) |
| 10 min | Thinking activation | Students brain storming starting from teacher’ suggested questions | Questions you find on Textbook  Digital board (if needed) |
| 10 min | General concept about figures of owner and manager | Teacher’s presentation | Digital board  Laptop (teacher)  Presentation created by teacher  Students Workbook (paper or digital) |
| 5 min | Closure of the lesson | Student Activity 1 | Digital board  Students Workbook (paper or digital) |

1. **LESSON 2 – Lesson plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Approximate scheduled time (tot = 50 min)** | **What** | **How** | **Tools** |
| 5 min | Introduction and presentation of the main goals of the lesson | Write down a mind map on the board by teacher | Digital board  Laptop (teacher)  Video (refer to the Resource Kit)  Students Workbook (paper or digital) |
| 10 min | Group Work: think about the activities of a manager in a beauty salon | Activity 2 (first part) | Students Workbook (paper or digital)  Electronic device connected to the Internet |
| 5 min | Brainstorming about Activity2 outcomes | Guided student’s presentation | Students Workbook (paper or digital)  Outcomes of Activity2 |
| 15 min | General concept about what are the activities of a manager in a beauty salon | Teacher’s presentation | Digital board  Laptop (teacher)  Presentation created by teacher  Students Workbook (paper or digital) |
| 10 min | Group Work: review of the previously created map | Activity 2 (second part) | Students Workbook (paper or digital)  Electronic device connected to the Internet |
| 5 min | Closure of the lesson | Student Activity 1 | Digital board  Students Workbook (paper or digital) |