

SKILLED

REPORT

The Framework of Learning Outcomes
“Educators on Sustainability through food”



ENGLISH



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INDEX

The Framework of Learning Outcomes “EDUCATORS ON SUSTAINABILITY THROUGH FOOD”	3
1. Skilled project	3
2. The Framework of Learning Outcomes	6
2.1 Introduction	6
2.2 Working method	7
2.2.1 Phase 1: Detailed and comprehensive identification of learning outcomes	8
2.2.2 Phase 2: Evaluation of the Framework by external stakeholders	13
3. How to read the matrix	15
4. The matrix	16
5. Final considerations	35
References	36

1 SKILLED PROJECT

“SKILLED: Key competences for building sustainability knowledge through food” project intends to address with teachers and students the complexity of food systems and their challenges (i.e. the increase in hunger and the spread of obesity, the need for more sustainable agricultural production in view of the increase in the world population and the scarcity of natural resources, as well as the scourge of food waste from farm to table) and the role of sustainable diets (meaning low environmental impact diets that contribute to food and nutrition security as well as a healthy life - FAO, 2010), to stimulate a sense of active citizenship resulting in a balanced relationship between the environment, food, resources and the need of human beings, which is fundamental for achieving the Sustainable Development Goals set by the United Nations for 2030.



In accordance with the objectives of the 2030 Agenda for sustainable development, the project intends to develop, test and disseminate a framework of learning outcomes that teachers and educators can use for teaching sustainability through food. Therefore, the project aims to support the teaching profession, but also to create tools, procedures and outputs capable of systematically training an ever-increasing number of school staff, guaranteeing a constant standard of quality over the years on the issues of sustainability through food.

More concretely, the specific objectives of the project are:

- **to establish a framework of learning outcomes** with which to guide the training of teachers specialized in teaching sustainability through food.
- **to improve knowledge and skills of teachers** who learn new interactive and engaging teaching methods, aimed at educating learners on the topic of sustainability through food, particularly by using the digital platforms that will be created.
- **to promote the growth of students**, developing their skills and making them knowledgeable about the role of food and the food system in the world, along with the health and environmental problems associated with them, through workshop activities and transnational collaborative experiences conducted by selected teachers and sector experts.

In order to achieve its objectives, this project begins with an investigation and analysis of teachers' knowledge and needs in order to teach sustainability through food (IO1). Once identified the state of the art, a framework of learning outcomes is elaborated (IO2). The ECVET methodology is used in order to ensure the transfer and recognition of the competences in the involved European countries.

The framework is then translated into an interactive manual containing guidelines for the teaching of sustainability through food (IO3), which will be made available to the teachers through an online interactive platform, built *ad-hoc* (IO4). Finally, after the testing of the training offered and the final improvements, provisions will be taken for a recognition of the “Educator on Sustainability through Food” in each Country (IO5). This European project involves 10 partners from 5 European Countries: Italy, Bulgaria, Greece, Latvia and Spain.



The consortium guarantees the involvement of the target group (i.e., teachers of secondary schools), on one hand, and, on the other hand, the expertise required for delivering the project outputs in the required quality, while ensuring benefits and use of the outputs beyond the project's closure.

The first output of this project, the **“Report on the state of the art of food & environmental sustainability and areas of improvement”** highlighted the following needs and remarks:

Both teachers and students

will benefit from being more knowledgeable and aware about food sustainability and sustainable development. In particular, it seems that the existing connection between sustainable diets as instrumental for individual health as well as for our planet wellbeing is not fully exploited.

Everyone agrees

on the importance of teaching sustainability and quite a few teachers believe that the most correct method for sustainability education in schools are curricular activities, to be developed in class through the teacher’s support as part of lesson planning and not as an occasional activity.

Teachers also correctly point out

the need to include the human dimension of learning, while dealing with sustainability in class, focussing also on “learning to be” and “learning to live together”.

Teachers state that it would be useful

for them to acquire specific skills to teach sustainability through food, which is not perceived as an easy subject.

Although students think

their lifestyles are quite sustainable, they seem to lack practical information and need to become more aware of the complexity linked to sustainable development topics. They should be exposed to specific knowledge (e.g., they should know what kind of actions can have a real impact on the environment) and teachers should stimulate their sense of agency. Such acquired knowledge and awareness would be useful for immediate action but also for long-term planning in their future careers.

Readymade materials to teach

this subject, such as lesson plans or glossary for technical terms (to share a common language), could help teachers in teaching sustainability through food.

Thus, the Project’s next step (Framework of learning outcomes) will endeavor to answer to these needs.



2 THE FRAMEWORK OF LEARNING OUTCOMES

2.1 Introduction

Skilled Project assumes that food is a very versatile topic, and it can be used not only for education in terms of health and nutrition, but also to deepen the understanding of the cultural and social dimension of sustainable development.

Based on the results of the previously mentioned report, the Framework of Learning Outcomes is elaborated with the following specific objectives:

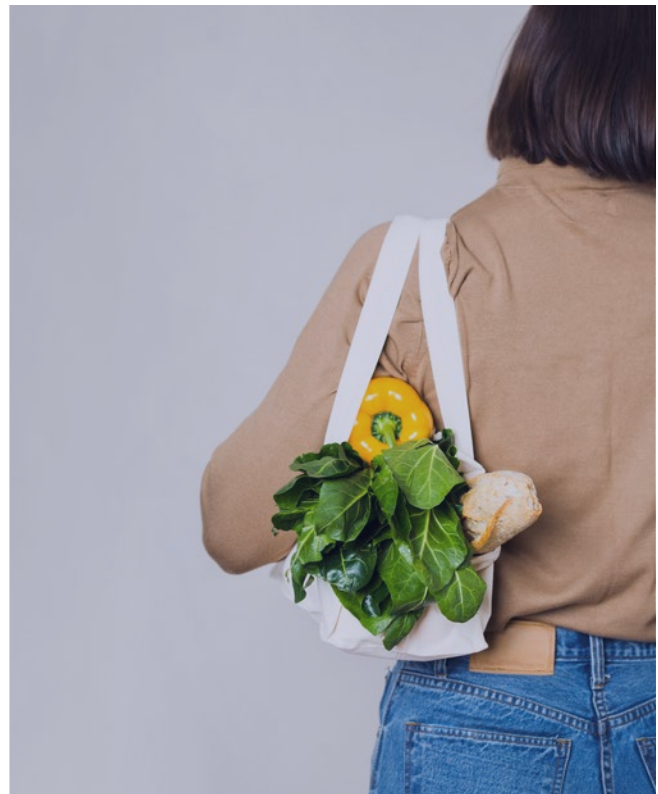
- **systematize skills, knowledge, and competencies** to support the teacher specialized in teaching sustainability through food in schools.
- **to promote the development of specific teaching skills and competencies**, together with innovative methodologies, in line with the principles of “triple O” (Open Science, Open Education, Open to the World).



The target of the Framework are teachers of secondary education, who have the responsibility of educating their students on how to approach sustainability through a holistic approach that takes into consideration the issues of health, environment, culture and social dimension of sustainable development. The learning outcomes describe the knowledge, skills and competencies that teachers should possess in order to educate their students on sustainability through food.

The main assumption adopted in the identification of the learning outcomes of the Framework is that Education to Sustainable Development (ESD) through food sustainability is a complex and encompassing process which aims not only at the transfer of knowledge, but rather at the transformation of communities through raising awareness and developing inclusive learning processes.

In order to do so, the learning outcomes do not only refer to the notions of food sustainability, food safety and healthy diets, but also to the design of learning environments capable of fully benefit from transformative experiential learning, where soft skills such as teamwork, emotional intelligence, empathy are at the core of the sustainability process.



2.2 Working method

The Matrix was developed according to an exploratory qualitative research approach, that resulted by a complex process of interrelation between transdisciplinary experts and a thorough study of international publications that have already identified those areas of competence that are related to sustainability education and food awareness.

The development of the Framework was organized into 2 phases:

- 1.** Detailed and comprehensive identification and list of the learning outcomes that compose the Framework of learning outcomes.
- 2.** Evaluation of the Framework by external stakeholders.



2.2.1 Phase 1: Detailed and comprehensive identification of learning outcomes

At first instance, the content of the Framework was identified, as a result of the reflection on how to reply effectively to the remarks and needs that emerged by the Report (i.e., IO1).

The following content areas were deemed as fundamental for teachers:

- **being aware** of the 17 goals of the Agenda 2030 and of their principles and values (United Nations, 2015);
- **knowing what** means to educate on sustainability through food;
- **knowing how** to create learning environments that are inclusive, stimulate students' creativity, participation, teamworking and facilitate student's interest and proactivity;
- **being able** to act as a coach, as a leader, to communicate effectively not only with students but also with the whole "school system" in order to approach sustainability through food in a wider perspective;



- **knowing how** to manage educational projects, how to manage change and transformation through effective projects that produce benefits for the whole school system;
- **being capable** to use digital tools in order to transfer educational content to students according to a multidimensional teaching approach that reflect student's way of learning;
- **being aware** of food nutrition and food sustainability topics.

In order to identify the units of the learning outcomes, the following publications have guided the process:

- **“Agenda 2030 for the sustainable development”**, adopted by the General Assembly of the United Nations (United Nations, 2015).
- **“Global education monitoring report-place”**, inclusive and sustainable cities. Paris: UNESCO. United Nations Educational, Scientific and Cultural Organization (2017).
- **“Education for Sustainable Development Goals – Learning Objectives”**, released by the United Nations Education, Scientific and Culture Organization (UNESCO, 2017).
- **“DigCompEdu – The European Framework for the Digital Competence of Educators”**, released by the Joint Research Centre of the European Commission (Redecker, Punie, 2017).
- **“PRINCE2® - Projects in Controlled environments”** (Axelos, 2017).
- **“Learning for the Future – Competences in Education for sustainable Development”**, released by United Nations Economic Commission for Europe (UNECE, 2001).
- **“Competences for Democratic Culture. Living together as equals in culturally diverse democratic societies”**, released by the Council of Europe (Barrett, 2016).
- **“Sustainable healthy diets - Guiding principles”** (FAO & WHO, 2019).
- **“We, food, our Planet”** (BCFN, 2018).

In order to ensure the transfer and recognition of the learning outcomes between Countries, with a view to achieving a European qualification, the **structure** of the Framework for “Educators on Sustainability through Food” was organized in Units of learning outcomes in accordance with the ECVET methodology (European Parliament, Council of the European Union, 2009).





Finally, it was necessary to use a **taxonomy** that could effectively describe learning outcomes, in terms of competences, knowledge and skills, according to the identified EQF level (i.e., EQF 6 Level). For this purpose, Bloom’s taxonomy, as revised by Anderson & Krathwohl (2001), was used.

As a result, the Framework of learning outcomes of the “Educator on Sustainability through Food” is composed out of the following 7 Units of Learning Outcomes, which are a structured aggregation of competencies, knowledge and skills:

ESF-U1	VALUES THINKING
ESF-U2	SYSTEM THINKING
ESF-U3	CREATING LEARNING SPACES
ESF-U4	INTERPERSONAL AND SOCIETAL COLLABORATION
ESF-U5	PROJECT MANAGEMENT
ESF-U6	DIGITAL COMPETENCES FOR EDUCATION
ESF-U7	FOOD – DIETS – SUSTAINABILITY

The Framework was internally revised by consortium members. According to their feedback, the Framework was then revised and sent to external evaluators.



2.2.2 Phase 2: Evaluation of the Framework by external stakeholders

The external evaluation of the Framework was fundamental in order to ensure its quality. In fact, in each Country, the following experts were consulted:



Altogether, the 23 external experts contributed to the improvement of the Framework with comments on the following areas:

- **Contents** if all the relevant learning outcomes were covered by the Framework and represented the profession of the educator of sustainability through food.
- **Lexicon** if the Framework is easily understandable or too technical.
- **Strength** and weakness of the Framework.
- **General Comments** for improvement.

The comments received by experts were elaborated and the Framework was subsequently updated. The Unit 7 “Food-diet-sustainability” was the one that required an addition of contents. Being the most innovative Unit of all the Framework, it was expected to be subject of a revision and external experts were fundamental to do so.

Units of the learning outcomes did not change after the revision by external experts. Only learning outcomes were updated.



Finally, some of the general comments of the external experts were:

“The matrix provides a well structured system that will facilitate building appropriate skills, knowledge and competences for educators who teach sustainability through food. The learning outcomes are topical and clearly explained.” (Researcher, Latvia).

“Great job is done, it will definitely provide teachers with a resource while teaching about sustainability through food. It will help look at global goals and see the local ones. It will encourage students change something, sometimes the students can change the family’s attitudes to issues. It will improve the school environment that will help in other subjects as well. The project includes also lots of skills demanded in career like teamwork, leadership, verbal communication etc.” (School manager, Latvia).

“My major is precisely on Chemistry and Environmental studies and according to my experience as a teacher I consider myself competent on Basic Food and Nutrition Knowledge. The Matrix is as a whole very well thought of and organized and precisely I liked the Learning Outcomes on FOOD – DIETS – SUSTAINABILITY.” (Teacher, Bulgaria).

“A thorough work is done, food, healthy eating and sustainability are acute topics nowadays and young people should be taught about it, sometimes the view on the topic in a single family can be changed or influenced by students, so it is important that they are aware of processes in the country and in the world, they can also learn appreciate their own situation. The material will be a great help for teachers.” (School manager, Bulgaria).

“Very clear, well organized. The various points are described in full and in simple words. All the objectives that I personally consider important in my didactic design are represented, some that I had never succeeded in explaining them so well. Reading them helped me become more aware. In summary, the matrix brings out the complexity of training processes on the theme of sustainability through food and the skills needed for teachers.”¹ (Teacher, Italy).

“I have participated in the design of several courses at university level and I find the structure of the proposal coherent and scalable to different levels of school and university education.”² (Researcher, Italy).

“I think that the project gives the opportunity to show new opportunities to change the way we live, trigger a micro change and increase the level of awareness on issues related to the environment, sustainability and food.” (School manager, Italy).

“The level of detail will be handy for educators to implement the values presented in the matrix.” (Researcher, Spain).

¹ **Originally in Italian:** Molto chiara, ben organizzata. I vari punti sono descritti in modo completo e con parole semplici. Sono rappresentati tutti quanti gli obiettivi che personalmente ritengo importanti nella mia progettazione didattica, alcuni che non ero mai riuscita ad esplicitarli così bene. Leggerli mi ha aiutato a diventare più consapevole. In sintesi, la matrice fa emergere la complessità dei processi di formazione sul tema della sostenibilità attraverso il cibo e le competenze necessarie ai/docenti.

² **Originally in Italian:** Ho partecipato alla progettazione di diversi Corsi a livello universitario e trovo l’impianto della proposta formativa coerente e scalabile a diversi livelli di istruzione scolastica e universitaria.



3 HOW TO READ THE MATRIX

Being a Framework of learning outcomes, **this matrix should be read as a tool for developing training contents for teachers**, in order to be capable educators on sustainability through food. Each unit of learning outcomes is organized in specific competences.

Each competence includes learning outcomes in terms of both knowledge and skills. Each knowledge includes one or more skills, and the logic is valid round way.

The Bloom's taxonomy is carefully considered in order to reflect the level of responsibility of autonomy "be able to...", the knowledge "describes, recalls, knows..." and the skills "apply, create, demonstrate, select, manage...".



These learning outcomes are a guide to build learning paths and to assess level of learning acquired by teachers. The 7 Unites will reflect "training modules" and learning outcomes can be mixed in order to create new modules. The flexibility of learning outcomes allows the Framework to adapt to different training contexts (i.e., formal, non-formal and informal), allowing also to assess and recognize those competences that teachers have acquired in non-formal and informal contexts.

Learning outcomes act evaluation indicators for certifying a teacher as "Educator on Sustainability through Food".

4 THE MATRIX



Title of the qualification	Educators on sustainability through food				
EQF Level	IT	ES	EL	LV	BG
	6	6	6	6	6

Aggregated Units of Learning Outcomes	ESF-U1	VALUES THINKING
	ESF-U2	SYSTEM THINKING
	ESF-U3	CREATING LEARNING SPACES
	ESF-U4	INTERPERSONAL AND SOCIETAL COLLABORATION
	ESF-U5	PROJECT MANAGEMENT
	ESF-U6	DIGITAL COMPETENCES FOR EDUCATION
	ESF-U7	FOOD - DIETS - SUSTAINABILITY
Cross sectional Learning Outcomes	<ul style="list-style-type: none"> • act ethically • be inclusive • understand the concept of complexity • ensure listening and participation • design to create concrete impact • learning to learn 	
Pre-requisites	<ul style="list-style-type: none"> • Basic English language skills • Basic digital skills 	

Title of the UNIT	ESF-U1 – VALUES THINKING				
EQF Level	IT	ES	EL	LV	BG
	6	6	6	6	6

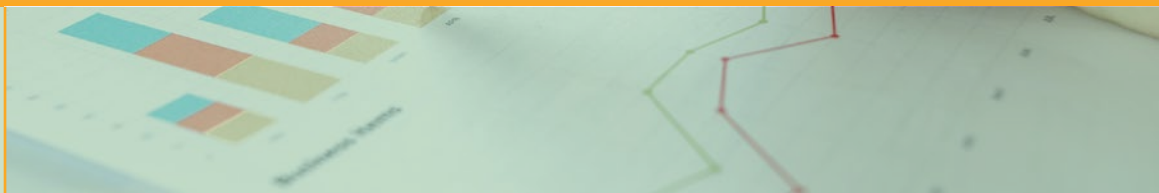
LEARNING OUTCOMES		
ESF -U1- VALUES THINKING	Competence / Responsibility and autonomy	
	Knowledge	Skills
1.1 Sustainable development (SD)	Be able to guide students to understand the concept and regulatory framework concerning SD	
	Know the main international documents concerning SD	Select the relevant documents
	Describe the historical evolution of the concept	Read and compare the relevant documents
	Know the main transnational non-binding regulations concerning SD	Interpret the relevant documents
	Know how and where to collect useful information related to SD and its implementation both at an international and national level	Organize the information gathered in the selected documents
1.1.1 Understanding the Complexity of Sustainability	Be able to produce a multidimensional framework concerning sustainable development	
	Describe the main elements of SD	Approach the triangular dimension of SD
	Know some standards, metrics and index	Compare different standards, metrics and index
	Define the intersectional approach to SD	<ul style="list-style-type: none"> • Use different sources from diverse disciplines to illustrate and explain the multiple dimensions of SD • Demonstrate with concrete examples the multiple dimensions of SD
1.1.2 Understanding the reality of sustainability	Be able to advise students on the real dimensions of the risks connected to the present situation of the planet	
	Describe the main existing elements of risks	Create multidisciplinary tables connecting the elements of risks

1.2 Agenda 2030, the affirmation of SD	Be able to guide students to understand the main features of Agenda 2030 and its program	
	Understand the documents connected to Resolution AG 70/1 2015	Create multidisciplinary tables connecting the elements of Agenda 2030
	Know the historical background	Express with knowledge of the characteristics of Agenda 2030 and explain how it has been applied
	Identify reliable sources of information	
1.2.1 Principles	Be able to create a coherent list for students on the main principles enshrined in Agenda 2030 and their value within international framework	
	Understand the principles	Explain the principles of Agenda 2030
		Apply the principles of Agenda 2030 to the analysis of today's reality
Identify the different origins of such principles	Construe tables connecting the principles to Agenda 2030 Goals and Targets	
1.2.2 Goals	Be able to produce teaching materials for students to enhance students' understanding of the interconnected character of the Goals in Agenda 2030 and their coherence within international legal framework	
	Recognise the Goals	Explain the Goals of Agenda 2030
	Know the international documents	Select appropriate examples to explain the applicability of the Goals of Agenda 2030
	Identify reliable sources of information	List and compare the content of the Goals
1.2.3 Goals	Be able to produce teaching materials for students to enhance students' understanding of understand the Target in Agenda 2030 and their coherence with related Goals	
	Know the Targets	Describe and explain the Targets of Agenda 2030
	Recognize the connection between Targets and related to the goals	List and compare the contents of the Targets
	Identify reliable sources of information	
	Identify national sources related to the Targets	

1.2.4 Indicators	Be able to produce teaching materials for students to enhance students' understanding of understand the Indicators' system in Agenda 2030	
	Know the Indicators	Describe and explain the Indicators of Agenda 2030
	Identify reliable sources of information	List and compare the indicators
	Identify national sources and results	Describe the monitoring results at national level

Title of the UNIT	ESF-U2 - SYSTEM THINKING				
EQF Level	IT	ES	EL	LV	BG
	6	6	6	6	6

LEARNING OUTCOMES		
ESF -U2- SYSTEM THINKING	Competence / Responsibility and autonomy	
	Knowledge	Skills
2.1 Mindset	Be able to approach sustainability issues and systemic problems, using different domains (or sectors) and scales (i.e., from local to global), applying data and information to explore different issues	
	Look at multiple perspective of an issue	Change perspective to see other points of view within a system
	Look at the "big picture"	Focus on the overall issue cutting across its different scales (from local to global) and details
	Understanding uncertainty and ambiguity	Take the necessary time to understand the dynamics of a system before taking action
	Look for patterns and similarities in data to consider issues appropriately	Review information and data, using patterns and themes
2.2 Content	Understand that meaning perspectives about an issue may limit one's thinking	Apply transdisciplinary methods in the school context (e.g., in conflict resolution in the classroom, lesson plans, educational activities, etc.)
	Be able to recognize the elements that characterize a particular system and to deal with its boundaries.	
	Describe the proprieties of elements with a high degree of accuracy	Can pay attention to elements that build up or deplete over time, either concrete or abstract elements
	Know how to consider the short- and long-term impacts inside the system	
	Be aware of boundaries	Envision projects, ideas and solutions beyond boundaries
Understand how to limit boundaries		



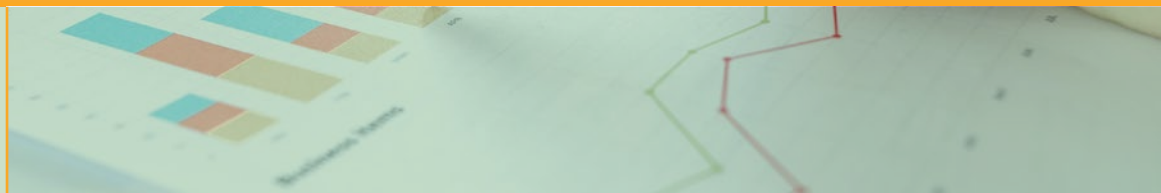
2.3 Structure	Be able to recognize and understand the relationships among parts and elements of a certain system	
	Describe the vast majority of relevant relationships and perceive connections between multiple issues/parts within a system	Can think critically about relevant relationships and causation among parts, not just correlation
2.4 Agency	Look beyond basic connections to understand the dynamic relationships among the connected parts	Can manage feedbacks provided by the systems (opportunities and threats)
	Be able to change a system to make it perform in the most- impactful way	
	Look for trends overtime as part of the natural dynamics of the system	Drive the changes in the short and long term effectively
	Consider both short and long terms consequence of one's action and unintended consequences	Look ahead and anticipating not only the immediate results of actions, but also the long-term effects and anticipating ancillary effects of action overtime
	Find assessment instruments	Apply tools for monitoring and measuring the level of agency
	See oneself as part of the system under study, understanding that one's own behaviour within the system impacts the system and looking for small actions that can make big differences	Use systems understanding to determine what small actions could produce high-leverage results
Identify potential resilient dynamics	Driving through behaviours for creating resilient systems	



Title of the UNIT	ESF-U3 – CREATING LEARNING SPACES				
EQF Level	IT	ES	EL	LV	BG
	6	6	6	6	6

LEARNING OUTCOMES

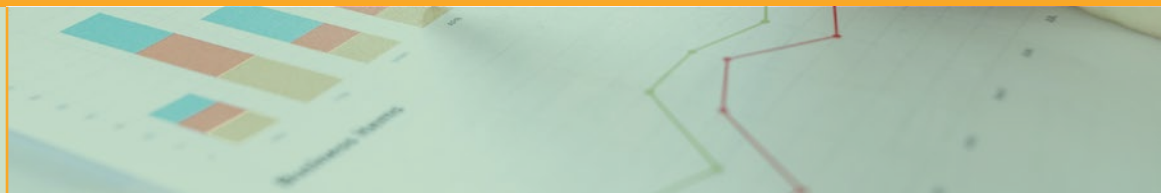
ESF -U3- CREATING LEARNING SPACES	Competence / Responsibility and autonomy	
	Knowledge	Skills
3.1 Spatial characteristics	Be able to deal with physical elements and spatial characteristics of the school environment and informal environment (in and outside the schools) in order to improve learning and teaching	
	Define proper learning and teaching space within the school context (e.g., school rooms, laboratories, gyms, canteens, kitchens, gardens)	Choose and adapt the learning and teaching space within and outside the school context
	Define proper learning and teaching space outside the school context (e.g., marketplace, farms, factories, museums, field visits)	
	Identify physical elements and spatial characteristics of the school environment that can influence improvements to cooperation, learning and teaching	Reorganize and design school environment to enhance cooperation, learning and teaching
	Identify physical elements and spatial characteristics of informal environment that can influence improvements to cooperation, learning and teaching	Deal and prepare for informal environments to enhance cooperation, learning and teaching
	Identify key resources and technologies that enhance learning and teaching	Organise, deploy and monitor resources and technologies effectively
	Find sustainable space attributes that are recognized for their importance in the effectiveness of learning spaces (e.g., school rating systems, tools for sustainable activity, green ranking)	Design learning spaces that include sustainable attributes to enhance learning and teaching
3.2 Learning pathway	Be able to produce identify and design different learning methods and activities in different contexts that increase the knowledge, skills, and effectiveness of the students	
	Identify proper learning methods according to the environment	Apply and adapt different learning methods in a specific context (e.g., evidence-based learning, challenge-based learning, project-based learning, prosperity-based learning)
	Identify activities suitable for the learning environment in a specific context	Apply different activities suitable for the learning environment in a specific context
	Identify available resources	Facilitate the sharing of available resources



3.3 Enabling learning community	Be able to produce understand the community, stimulate a sense of belonging, interdependence and trust among the members, promote supportive learning condition	
3.3.1 Know and understand the community	Be able to produce understand the context and evaluate the relevant global and local factors that impact on the community with which teacher's work takes place, share values, vision and practices	
	Identify needs, assets and opportunities using relevant information and evidence	Conduct a community assessment, considering the relevant needs, assets and opportunities
	Ascertain problems and demands	Design strategies to overcome problems and demands
3.3.2 Embedding the community	Be able to produce find, build and maintain relationships with individuals and groups	
	Identify individuals, groups and communities	Engage with individuals, groups and communities
	Understand the needs, perspectives and actions of others (empathy)	Respect the needs, perspectives and actions of others (empathy)
	Identify barriers to participation, including special needs	Design strategies to overcome barriers to participation
	Identify and list possible types of conflicts in a group	Deal with conflicts in a group
	Describe collaborative and participatory problem-solving activities and strategies	Facilitate collaborative and participatory problem-solving activities and strategies
3.3.3 Community empowerment	Be able to facilitate and promote community empowerment so that people can take individual and collective actions to bring about change	
	Understand power dynamics and decision-making processes	Analyse and deal with power dynamics and decision-making processes
	List community actions	Use community actions to drive and achieve change
	Understand how to involve the wider community	Interact within and across communities Create mechanisms for partnership and networking opportunities

Title of the UNIT	ESF-U4 – INTERPERSONAL AND SOCIETAL COLLABORATION				
EQF Level	IT	ES	EL	LV	BG
	6	6	6	6	6

LEARNING OUTCOMES		
ESF -U4- INTERPERSONAL AND SOCIETAL COLLABORATION	Competence / Responsibility and autonomy	
	Knowledge	Skills
4.1 Empathy	Be able to recognize personal and other people’s emotions, to take over the perspective of another person, to share and manage in an effective way personal emotional state	
	Understand the concept of emotional intelligence and empathy and being aware of other people emotions, moods, feelings and states of mind	Use active listening Recognize emotions in oneself and others via different communicative cues (e.g., facial expressions, speech, behaviours) Experience and share similar emotions as others
	Understand the main cues of emotional expressions (e.g., body language)	Adopt an Open-minded approach (e.g., take over the perspective of another person)
	Identify the perspective of another person	Adopt an Open-minded approach (e.g., take over the perspective of another person)
	Be able to teach what empathy is and why it matters	
	Understand the role of empathy as an educational tool	Practice empathy Set clear ethical expectations Make school culture and climate a priority
4.2 Effective verbal communication	Be able to demonstrate communicative verbal skills dealing with students, colleagues and local community (in the organization of sustainability through food education activities)	
	Know the most appropriate methods and tools of communication with specific reference to non-formal and transformative education methods	Speak clearly and concisely Apply different communication methods to the right context (students, colleagues and local community)
	Know the most appropriate methods and tools of communication with specific reference to the organization of sustainability through food education activities and local community engagement	

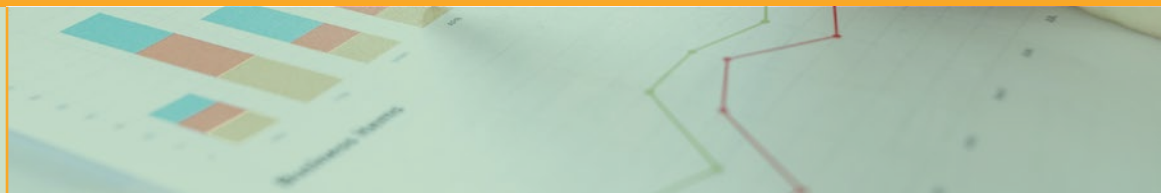


4.3 Effective written communication within school's organization and with stakeholders	Know how to recognize the arising of problems within communication process with specific reference to non-formal and transformative education methods	Express and effectively illustrate the process and the content of the proposed educational activities according to the right context (students, colleagues and local community)
	Know how to recognize the arising of problems within communication process with specific reference to the organization of sustainability through food education activities and local community engagement	
	Know the methodologies to solve the communication problems with students, colleagues and local community	Apply different methods of effective communication
		Present and involve effectively all students, colleagues and local community participating in the activity
		Intervene to solve communication problems with students, colleagues and local community
	Be able to demonstrate communicative written skills dealing with the school's organization and stakeholders with specific reference to the promotion and dissemination of the organized educational activities and local community involvement	
	Know the most appropriate methods and tools of communication with specific reference to the organization of sustainability through food education activities and local community engagement	Apply different methods of effective communication to write a correct press release on the organized activities
	Know how to recognize the arising of problems within communication process	Report effectively the organized activities
	Know the methodologies to solve communication problems	Explain and discuss problems within communication process
	Interact effectively with others in professional context	Apply different methodologies to communications problems
4.4 Teamwork	Be able to collaborate with others (colleagues, principal, external stakeholders, other stakeholders) in meeting the school objectives with respect to educating of sustainability through food	
	Identify different individual attitudes towards group work	<ul style="list-style-type: none"> Apply different strategies and role playing according to the context, the competences and the needs of the team Demonstrate possible ways to react to individual behaviours
	<ul style="list-style-type: none"> Find elements to booster teamwork confidence and motivation Defines strategies to create supportive and comfortable group atmosphere 	Create positive atmosphere within the teamwork to boost effective cooperation

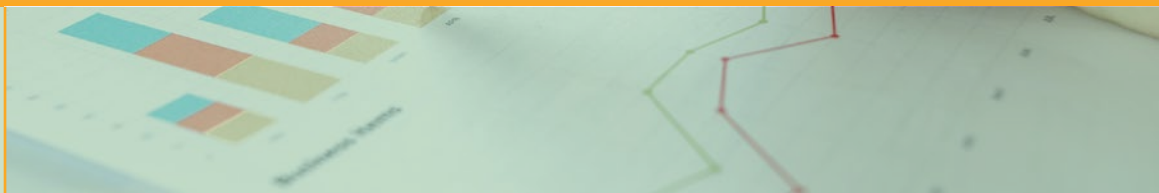
4.5 Leadership	Be able to describe and understand the internal and external environments to build further collaborations	
	Identify strategies to facilitate teamwork, provide autonomy, and lead to better decision-making	Demonstrate ability and willingness to seize opportunities
	Understand risks associated with change in the internal and external context	Be able to create an environment that fosters learning, collaboration, inclusion and teamwork
	Being responsible for meeting the goals defined by the educational project on sustainability through food	Be able make appropriate planning which builds on lessons learned through previous experiences
4.5.1 Strategic Thinking (Lead in goals)	Be able to identify how to be proactive about researching and gathering information that will help involved stakeholders and target groups to make decisions	
	Define and reflect on existing best practices, ensuring any strategy conceived is grounded in credible facts	Arrange relevant information in order to correctly identify the aims of the planned activities
	Identify the appropriate activity to be carried out, considering internal and external context, to reach the goals of sustainable development through food education	Use and adjust selected best practices to reach the identified aims
	Manage key relationships inside and outside the school that will help advance sustainability through food education objectives	Prepare accurate analysis on the appropriateness of the planned activities
4.5.2 Relations (Leading people)	Be able to build, maintain, and leverage key relationships inside and outside the school that will help objectives	
	Lead change and improvement to move towards the objectives of the project Identify strength and weaknesses in the existing relationships within internal and external context	Arrange school activities fostering their full participation of internal and external actors
4.5.3 Adaptability and Flexibility (Lead in charge)	Be able to adapt leadership behaviour to the needs of the current situation and is comfortable with dissent	
	Describe (ways on) how to learn to use feedback to reinforce what they are doing	Approach challenges and opportunities creatively
	Find strategies to improve productivity and effectiveness	Provide constructive feedbacks

Title of the UNIT	ESF-U5 – PROJECT MANAGEMENT				
EQF Level	IT	ES	EL	LV	BG
	6	6	6	6	6

LEARNING OUTCOMES		
ESF -U5- PROJECT MANAGEMENT	Competence / Responsibility and autonomy	
	Knowledge	Skills
5.1 Project Management	Be responsible for the management of a project related to educating on sustainability through food	
	Quote what a project is	Build a project starting from the project idea to the achievement of long-lasting benefits
	Recall the difference between business as usual and a project	
	Understand the logical framework and its purposes	
	List project's variables and tolerances at project, stage and work package level	Elaborate a project being aware of its variables and their tolerances
5.5.1 Project management principles	Be able to comply with the PM Principles in the management of the project	
	Quote and describe PM principles	Apply PM principles in a project related to educating on sustainability through food
	Understand PM Principles in relation to other PM elements	Show the connection between PM Principles, Processes and Themes
5.5.2 Project management processes	Be able to manage the lifecycle of an educating on sustainability through food project	
	Describe the purpose, the objectives and the minimum requirements of PM Processes	Plan the project according to the respect of PM processes
	List the activities of each PM process	Design roles and responsibilities for each PM process
		Elaborate the management products for each PM process



5.5.3 Project management themes	Be able to manage a project while addressing all aspects of PM continually and in parallel throughout the project	
	Describe the purposed, objectives, activities and minimum requirements of PM themes	Apply PM themes within a project, assuring tailoring to project context in the company Assess PM approaches according to project context
5.5.4 Organization theme and Stakeholder engagement	Match PM themes and PM processes when they are developed, authorized, monitored and revised	Plan the project while assuring that the PM tasks in relation to project's themes are delivered in due project lifetime in order to assure project direction.
	Be able to represent the project organisation according to the business, client, supplier perspective	
	Understand PM stakeholders	Involve properly PM stakeholders representing the business, the client and the supplier in the PM board
	Describe responsibilities of PM team	Structure the project in accordance to relevant competences required for the purpose of a project related to educating on sustainability through food.
	Understand own role as project manager and the role of each PM Team	Elaborate project's Organization Chart
	Be able to strategically plan and manage the stakeholder engagement during and after the project	
	Know the concept of Stakeholders	Able to map company's stakeholders and the role they play
	Know what stakeholder engagement is and how it is performed within the context of the project	Identify which stakeholders need to be involved, in which moment and for which purpose
	Know the main tools and resources for effective stakeholder engagement	Select and apply the most suitable tools and resources to engage the stakeholders of the company at hand
	Know how to identify and rank the different categories and group of Stakeholders at hand	Analyse the processes adopted by the institution for stakeholders' engagement
Identify the opportunities of stakeholders' engagement for the institution		
Rank the different categories and group of Stakeholders at hand		



5.5.5 Project planning	Be able to manage the project “educating on sustainability through food” according to the Product Based Planning Approach	
	Understand the “Product Based Planning Approach”	Design project’s Plans structure (Project, Stage, Work Packages, Exception)
	Know SWOT analysis	Apply the SWOT analysis
5.5.6 Risk management	Be able to manage project’s risks according to a well-defined and structured risk management procedure (identify, assess, plan, implement, communicate)	
	Understand clearly the risks that can impact the project in terms of threats and opportunities	Identify, assess monitor risks, in order to minimize the probability and impact of threats and to maximize the probability and impact of opportunities
	Define the purpose of risk management and the approach selected for the project	Plan Risk Management Approach
		Select the best Risk Management Approach for the educating on sustainability through food project
Define Project’s risk tolerances	Create Risk Management Approach and Risk Register	
5.5.7 Change management	Be able to manage the quality of project assuring that the final report fits for purpose	
	Describe what change is and how it is connected to project benefits	Assess if a change produces project benefits or protects an existing benefit
	Describe Configuration Management Approach	Produce project’s baselines
Produce a report on the status of a product		

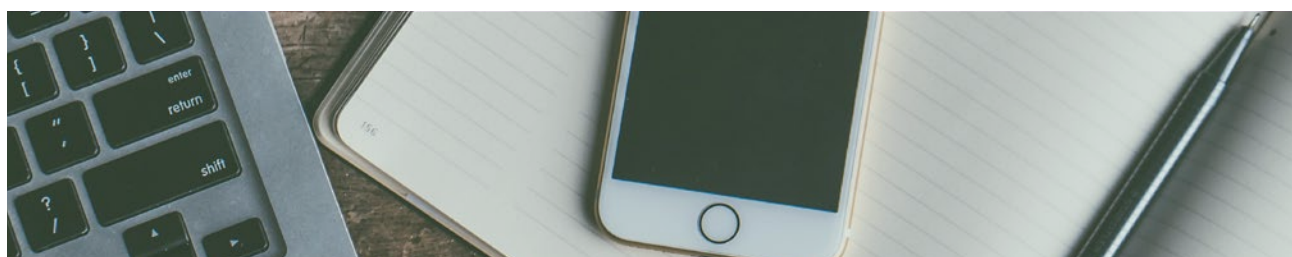


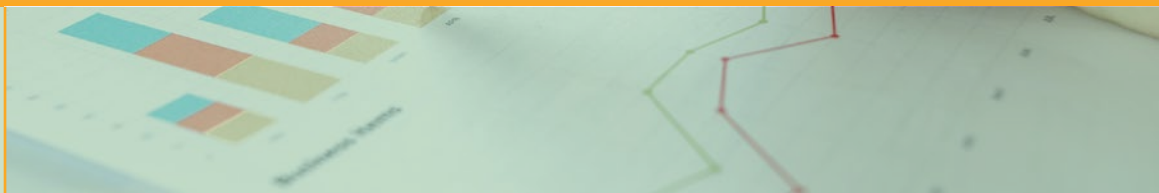
Title of the UNIT	ESF-U6 - DIGITAL COMPETENCES FOR EDUCATION				
EQF Level	IT	ES	EL	LV	BG
	6	6	6	6	6

LEARNING OUTCOMES

ESF -U6- DIGITAL COMPETENCES FOR EDUCATION	Competence / Responsibility and autonomy	
	Knowledge	Skills
6.1 Professional engagement	Be able to use digital technologies for communicating in an effective and responsible way	
6.1.1 Organizational communication	Find how to use digital technologies for communicating in an effective and responsible way	Use different digital communication channels and tools, depending on the communication purpose and context
	Define how to communicate digital technologies in an effective and responsible way	Communicate responsibly and ethically with digital technologies, e.g., respecting netiquette and acceptable use policies (AUP)
6.2 Digital Resources	Be able to manage resources by using basic strategies for teaching, learning, creating contents, assessment and dissemination	
6.2.1 Managing, protecting and sharing digital resources	Define how to communicate by using basic strategies	Share educational content via e-mail attachments or through links
	Identify the resources distributed on the internet	Be aware that some resources distributed on the internet are copyrighted
6.3 Teaching and learning	Be able to integrate available digital technologies meaningfully into the teaching process	
6.3.1 Teaching	Integrate and manage available digital technologies meaningfully into the teaching process	Organize and manage the integration of digital devices (e.g., classroom technologies, students' devices) into the teaching and learning process
		Manage the integration of digital content, e.g., videos, interactive activities, into the teaching and learning process

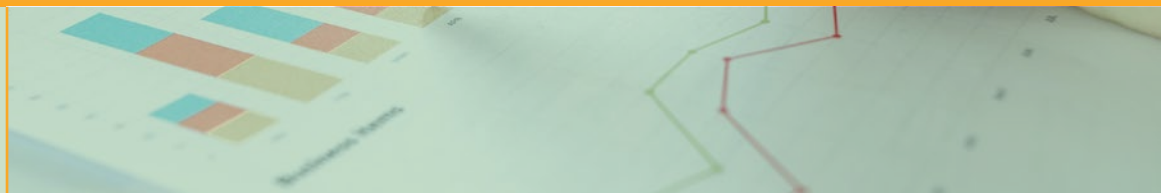
6.3.2 Guidance	Be able to use digital technologies to enhance interaction with learners	
	Identify how to use and manage digital technologies to enhance interaction with learners	Use a common digital communication channel with their learners to respond to their questions and doubts Be frequently in contact with learners and listen to their problems and questions
6.3.3 Collaborative learning	Be able to implement digital technologies into the design of collaborative activities	
	Define how implement and manage collaborative activities through the digital technologies	Design and implement collaborative activities, in which digital technologies are used by learners for their collaborative knowledge generation, e.g., for sourcing and exchanging information
	Manage digital technologies for the design of collaborative activities	Encourage learners to document their collaborative efforts using digital technologies, e.g., digital presentation, videos, blog posts
	Manage the most appropriate tool for the active engaging of learners	Choose the most appropriate tool for fostering learner active engagement in a given learning context or for a specific learning objective
6.4 Assessment	Be able to use digital technologies to provide feedback	
6.4.1 Feedback and planning	Find how to suit their teaching activities based on the data generated by the digital technologies	Adapt their teaching activity and assessment practices, based on the data generated by the digital technologies that they use
	Define how to use digital technologies to provide feedback	Provide personal feedback and offer differentiated support to learners, based on the data generated by the digital technologies used
	Define how to plan future learning activities and how to communicate them	Use digital technologies to enable learners and parents to remain updated on progress and make informed choices on future learning priorities, optional subjects or future studies





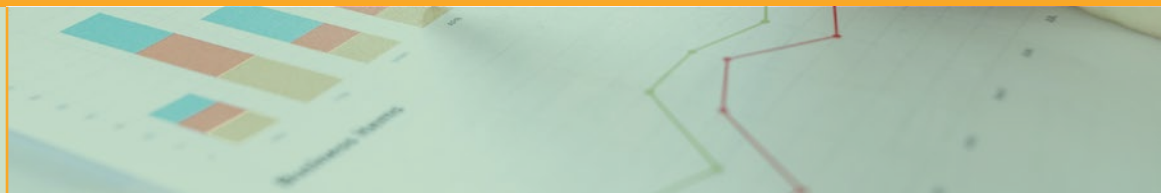
6.5 Empowering Learners	Be able to address accessibility and inclusion	
	Encourage accessibility and inclusion to the digital technologies	Understand how access to digital technology creates divides and how students' social and economic conditions have an impact on the way technology is used
		Ensure that all students have access to the digital technologies that they use
6.5.1 Accessibility and inclusion	Use and implement digital technologies to support inclusion and accessibility	Be aware that the compensatory digital technologies can be used for learners' in need of special support (e.g. learners with physical or mental constraints; learners with special needs)
6.6 Facilitating learners' digital competences	Be able to implement activities fostering learners' information and media literacy	
	Define how to implement learning activities for information retrieval	Implement learning activities in which learners use digital technologies for information retrieval
6.6.1 Information and media literacy	Describe how to teach to learners how to correctly search information	Teach learners how to find information, how to access its reliability, how to compare and combine information from different sources
6.6.2 Digital content creation	Be able to implement activities fostering digital content creation by learners	
	Define how to implement teaching activities for the creation of digital content	Implement learning activities in which learners use digital technologies to produce digital content, e.g. in the form of text, photos, other images, videos, etc
	Describe how to define the publishing tools to the learners	Encourage learners to publish and share their digital productions



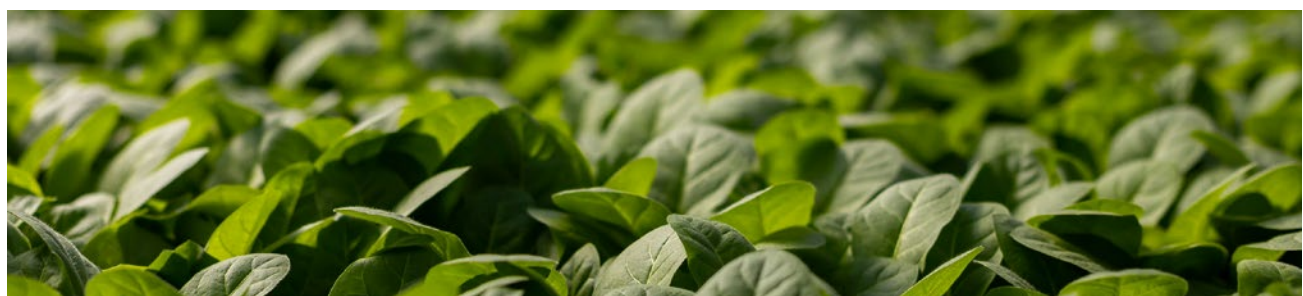


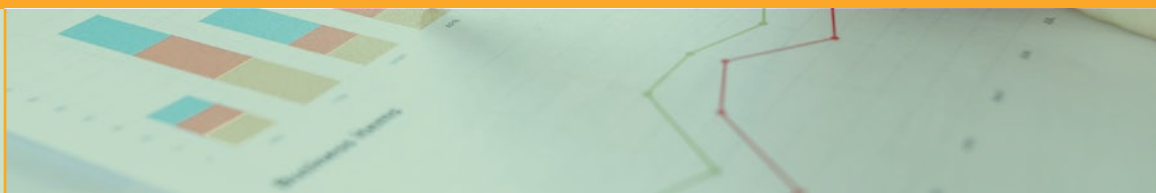
Title of the UNIT	ESF-U7 – FOOD – DIETS – SUSTAINABILITY				
EQF Level	IT	ES	EL	LV	BG
	6	6	6	6	6

LEARNING OUTCOMES			
ESF -U7- FOOD – DIETS – SUSTAINABILITY	Competence / Responsibility and autonomy		
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #d3d3d3;">Knowledge</th> <th style="background-color: #d3d3d3;">Skills</th> </tr> </thead> </table>	Knowledge	Skills
Knowledge	Skills		
7.1 Food, people and planet	Be aware about the role of educating on sustainability through food		
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Understanding the different connections between food, people and the planet</td> <td style="width: 50%;">Apply a large view when teaching about the food system</td> </tr> </table>	Understanding the different connections between food, people and the planet	Apply a large view when teaching about the food system
Understanding the different connections between food, people and the planet	Apply a large view when teaching about the food system		
7.2 Basic Food and Nutrition Knowledge	Be able to identify, understand, access and review best available research/evidence about food, nutrition and related topics for application to practice in the school context		
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Describe the basic functions of the nutrients and identify examples of significant foods and food group sources for each significant food</td> <td style="width: 50%;">Explain the basic functions of the nutrients and report examples of significant foods and food group sources for each significant food</td> </tr> </table>	Describe the basic functions of the nutrients and identify examples of significant foods and food group sources for each significant food	Explain the basic functions of the nutrients and report examples of significant foods and food group sources for each significant food
	Describe the basic functions of the nutrients and identify examples of significant foods and food group sources for each significant food	Explain the basic functions of the nutrients and report examples of significant foods and food group sources for each significant food	
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Identify the components of the appropriate national and international dietary guidelines</td> <td style="width: 50%;">Access and compare national and international dietary guidelines</td> </tr> </table>	Identify the components of the appropriate national and international dietary guidelines	Access and compare national and international dietary guidelines
	Identify the components of the appropriate national and international dietary guidelines	Access and compare national and international dietary guidelines	
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Define the different forms of malnutrition</td> <td style="width: 50%;">Present the different forms of malnutrition</td> </tr> </table>	Define the different forms of malnutrition	Present the different forms of malnutrition
Define the different forms of malnutrition	Present the different forms of malnutrition		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Find food labelling regulation and identify food claims</td> <td style="width: 50%;">Illustrate how to read food labelling and food claims to evaluate the appropriateness of a food</td> </tr> </table>	Find food labelling regulation and identify food claims	Illustrate how to read food labelling and food claims to evaluate the appropriateness of a food	
Find food labelling regulation and identify food claims	Illustrate how to read food labelling and food claims to evaluate the appropriateness of a food		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Match the dietary prevention of, and management approaches associated with the major diet-related public health issues</td> <td style="width: 50%;">Apply the dietary prevention of, and management approaches associated with the major diet-related public health issues</td> </tr> </table>	Match the dietary prevention of, and management approaches associated with the major diet-related public health issues	Apply the dietary prevention of, and management approaches associated with the major diet-related public health issues	
Match the dietary prevention of, and management approaches associated with the major diet-related public health issues	Apply the dietary prevention of, and management approaches associated with the major diet-related public health issues		
7.2.1 Nutrition research	Be able to use search engines for nutrition and food sustainability researches		
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Know the search engines for the analysis and research of scientific studies concerning food sustainability</td> <td style="width: 50%;">Use the search engines for the analysis and research of scientific studies concerning food sustainability</td> </tr> </table>	Know the search engines for the analysis and research of scientific studies concerning food sustainability	Use the search engines for the analysis and research of scientific studies concerning food sustainability
	Know the search engines for the analysis and research of scientific studies concerning food sustainability	Use the search engines for the analysis and research of scientific studies concerning food sustainability	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Identify best available research/evidence about food sustainability and nutrition</td> <td style="width: 50%;">Access science-based information from multiple disciplines and sources (e.g., government, national/international non-governmental organization publications, alternative literature sources, web databases) and critically evaluate the integrity of science-based information for limitations and potential bias</td> </tr> </table>	Identify best available research/evidence about food sustainability and nutrition	Access science-based information from multiple disciplines and sources (e.g., government, national/international non-governmental organization publications, alternative literature sources, web databases) and critically evaluate the integrity of science-based information for limitations and potential bias	
Identify best available research/evidence about food sustainability and nutrition	Access science-based information from multiple disciplines and sources (e.g., government, national/international non-governmental organization publications, alternative literature sources, web databases) and critically evaluate the integrity of science-based information for limitations and potential bias		



7.3 Social, cultural and ethical issues related to food	Be able to identify, describe and explain social, cultural, and ethical topics and issues related to food	
	Identify the cultural classification of foods and their different social meanings	Use the cultural classification of food in different contexts and show the different social meanings of food (e.g., gender issues, omnivore's dilemma)
	Find examples of significant foods and food group sources in different cultures	Show examples of significant foods and food group sources in different cultures
	Identify differences in lifestyles (e.g., rural vs urban setting) and their impact in terms of food consumption patterns, from the frequency to the amounts consumed	Show differences in lifestyles (e.g., rural vs urban setting) and their impact in terms of food consumption patterns, from the frequency to the amounts consumed
	Describe ways to dialogue with community members and other professionals to share common food and eating practices, that are healthy and sustainable	Speak to community members and other professionals to share common food and eating practices, that are healthy and sustainable
	Identify ethical, humane, and fair treatments of individuals and animals	Explain and encourage ethical, humane, and fair treatments of individuals and animals
7.4 Agricultural Production and Food system (environmental stewardship)	Be able to identify, describe and explain topics and issues related to the agricultural production and Food Systems	
	Understanding the food system from farm to consumption	Explain the different relations among actors in the food system
	Identify and understand the Life Cycle Assessment method and environmental indicators (e.g., carbon footprint)	Show the Life Cycle Assessment method and environmental indicators (e.g., carbon footprint)
	Find differences in agricultural practices and production methods and describe their potential effects on food choices and food availability	Show differences in agricultural practices and production methods and use of natural resources and illustrate their potential effects on food choices and food availability
	Describe the relationships between natural resources (e.g., soil, water, biodiversity) and the quantity and quality of the food and water supply	Explain the relationships between natural resources (e.g., soil, water, biodiversity) and the quantity and quality of the food and water supply





7.5 Food, economics and Policy	Be able to identify, describe and explain topics related to food economy and food policy	
	Identify the impacts of food and the food system on the Agenda 2030	Show the impacts of food and the food system on the Agenda 2030
	Describe the role of circular economy and other sustainability strategies	Illustrate the role of circular economy and other sustainability strategies
	Describe the roles of government agencies in regulating food systems and the food supply	Speak about the roles of government agencies in regulating food systems and the food supply
7.6 Food wastage	Be able to identify, describe and explain topics and best practices related to food wastage	
	Describe the difference between food lost and food waste	Explain the difference between food lost and food waste
	Identify the causes of food loss and waste and the impacts of food wastage on the Agenda 2030	Explain the causes of food loss and waste and show the impacts of food wastage on the Agenda 2030
	Find different solutions applied in the world for stopping wastage and the promotion of zero waste approaches	Speak about the different solutions applied in the world for stopping wastage and the promotion of zero waste approaches
	List the effects of various food processing, packaging, distribution, traceability, counterfeiting, certifications and as well as the amount and types of additives, contaminants, and pathogens in foods	Explain the effects of various food processing, packaging, distribution, traceability, counterfeiting, certifications and marketing practices on food availability, food choices, and nutritional value as well as the amount and types of additives, contaminants, and pathogens in foods
	List the effects of various marketing practices on food availability and food choices	Explain the effects of various marketing practices on food availability and food choices



5 FINAL CONSIDERATIONS

Thanks to this Framework, **teachers will be able** on the basis of the identified Framework of learning outcomes, **to design educational paths to teach sustainability through food in the school environment**, using innovative methodologies and tools, as well as by examining concrete experiences in the local communities. Thanks to this specific guidance, teachers will be able to transfer the technical and cognitive know-how gained to colleagues and learners so that they become promoters, in their respective contexts, of educational actions of a formal and non-formal nature aimed at students, friends, acquaintances fostering so a systematic thinking on sustainability and its interrelation with food.

The framework will be translated into an interactive manual containing guidelines for the teaching of sustainability through food (I03), which will be made available to the teachers through an online interactive platform, built ad-hoc (I04).



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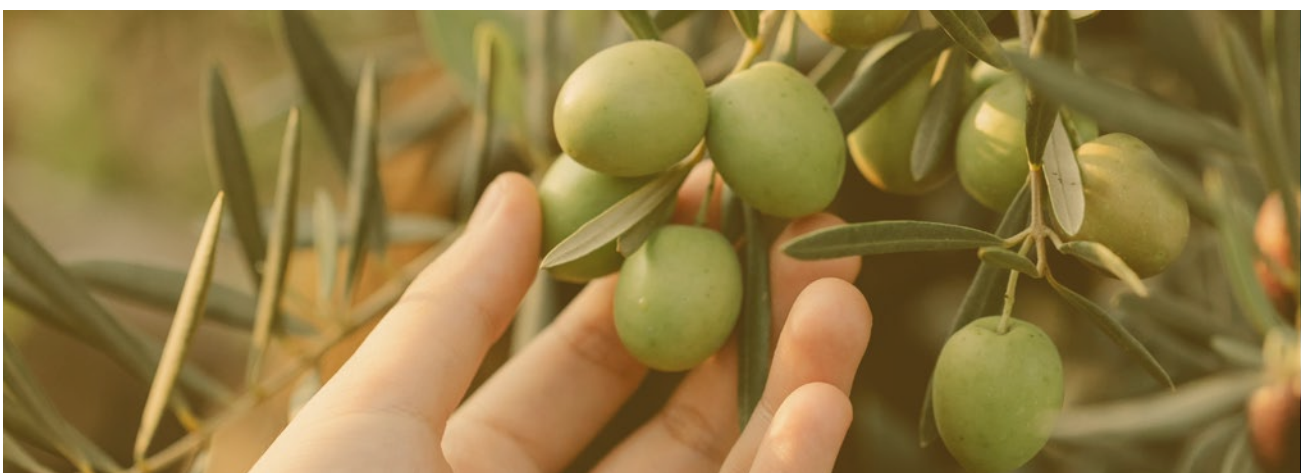


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