



Skills rubric sustainable learning - USE & VALUE RENEWABLE RESOURCES AND SERVICES



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Skill	Entry educator	Entry youngster	Basic educator	Basic youngster	Advanced educator	Advanced youngster	Assessment educator	Assessment Youngster	Validation
Use & value renewable resources and services	What does the educator do before starting.	What does the youngster do before starting.	What does the educator do to coach towards (self) awareness and self esteem.	What does the youngster do to grow towards (self) awareness and self esteem. A youngster at a basic level should have practiced but still need coaching to perform independently.	What does the educator do to coach towards master the skill.	What does the youngster do to master the skill A youngster at this level can perform the skill independently in different situations.	What does the educator do to assess the skill?	What does the youngster do to get the skill assessed. A youngster at this level can perform independently and reflect on their abilities.	
	The educator delves into the skill and the accompanying abilities. He thinks about how the skill can be useful for the youngsters. He processes the skill in a learning activity. The theme of "Use and Value Renewable Resources and Services" requires a multidisciplinary approach and a set of skills that allow us to understand the current and future challenges related to the production, distribution and sustainable use of energy. It includes a very broad panorama of knowledge that ranges from science (physics, chemistry, geology, environmental sciences) to engineering, from economics to data analysis and to communication. That's why, before starting a training activity on "renewable resources and services" aimed at a group of young people, an educator should gather several crucial pieces of information to ensure the effectiveness and suitability of the intervention such as Prior knowledge on the subject, Interests and motivations, Age and educational level...	1. Think about what I know about this skill. 2. How am I with Use & value renewable resources and services? 3. What do I want to know/learn?	The educator looks, after the activity at which knowledges and abilities about the topic he has seen in the youngster. What can a youngster already do? He discusses this as concretely as possible with the youngster. This does not mean that a youngster should already be able to do everything, but that the educator focuses on which skills he has already seen.	Reflect after the activity. Do you have a better idea of what the skill is about and how you deal with this skill (direct applications)? Are you able to apply knowledges and skills in simple and familiar situations with guidance from someone else and specific instructions?	The educator knows which behavior goes with each ability of the skill. He can discuss with a youngster what he/she has to do to achieve a skill. He uses the abilities as described in the Skills grid. The educator uses the following basics: the youngster understands the different skills. He has applied the different skills in different situations. The youngster is able to reflect on his own actions.	Look at the different abilities of this skill and determine for yourself what you can already do and what you still need to learn. If necessary, discuss with your educator how you can work on an ability. Collect evidence of your acquired ability. This can be done in different ways.	Using the pre-established criteria per objective, see what evidence you want to see to determine whether a young person has mastered the skill. This involves: - Does a young person understand what it is about? - Has he applied the skill in different situations? - Can the young person reflect on his learning process and how he applies this skill?	Provide evidence of your proficiency. You may choose how you demonstrate that you are able to: - understand what produce no waste is about and what abilities you need to master. - apply the abilities of producing no waste in different situations. - reflect on your learning process and how you did this.	The abilities belonging to producing no waste are described in BadgeCraft. The educator and the youngster have had instruction on how to use Badge Craft. When a Youngster thinks he has mastered the ability, he goes to Badgecraft and provides proof of his acquired skill. The educator checks whether this is enough to award the badge or gives additional instruction.
Assess resource availability	Collect information on: 1. Main renewable resources and services and their characteristics 2. Methods and Tools to analyze and collect data about renewable resources, their presence and availability; Decide how these abilities can be of use for the youngster and how you can integrate these abilities in a learning activity.	Do I pay attention to energy consumption and energy efficiency at home or at workplace? Am I in the habit to use renewable resources? What I want to learn about this topic? Do I understand the concept of renewable services (public transportation; sustainable agriculture)?	Did you find that the youngster has a basic knowledge of different kinds of renewable resources and services? Does the young person have the ability to identify renewable resources and services in his/her territory? Has he/she the habit of preferring renewable resources and services in his/her daily choices? Is he/she capable of identifying potential developments in the use of renewable resources in his/her daily life and in his/her living and working context? If so, reflect on this with the youngster and be as concrete as possible.	Do you know more about renewable resources and services and their characteristics? During the activity, have you been able to analyze your habits of use of renewable resources in daily life and identify ways to develop it? Do you know more about the characteristics of different renewable resources and services and their availability in your context? Do you know more about methods for assessing and evaluating them? REQUIREMENTS -Ability to recognize the different types of renewable resources such as solar, wind, hydroelectric, geothermal, and biomass and services (such as public transport, sustainable agriculture...); -Understand fundamental concepts: Have a basic understanding of how these different sources work; -Ability to locate basic information about renewable resources availability in a given area and interpret them using basic tools (e.g., online maps, basic public databases); -Understand basic environmental factors: basic knowledge about the main environmental factors that influence the availability and use of renewable resources (e.g., seasonality, terrain orography).	Discuss with the youngster on how he/she can practice with the ability to assess and evaluate the availability of renewable resources and services in his/her own environment. In what kind of situations can he/she practice this and how can others see that he uses these abilities?	Have a look at your ability to assess and evaluate the availability of renewable resources in your own environment, in different contexts and situations, including complex and unfamiliar ones. Are you able to recognize different renewable sources and to use tools to evaluate their availability? Are you able to solve problems and make informed decisions on this topic? Are you able to adapt knowledge to new contexts and generate new ideas? What have you already mastered and what do you need to practice? Discuss with your educator how you can practice the ability. In what kind of situations can you practice this and how can others see that you use these abilities? REQUIREMENTS -Ability to conduct detailed quantitative analyses using advanced tools and software -Ability to carry out in-depth analyses on the availability and potential of renewable resources using complex data and specific methodologies (e.g., statistical analysis, modeling); -Ability to evaluate technical and economic feasibility related to the development of renewable energy projects. -Basic knowledge of the regulatory framework and incentive policies related to renewable energy at local, national, and international levels.	Did the youngster show the ability to assess and evaluate the availability of renewable resources in a correct way? Did he/she show the ability to monitor his/her use of renewable resources, identifying potential developments using tools and methods for data analysis? Does he/she know what the ability is about? Is he/she able to apply the ability in different situations? Is the youngster able to reflect on his/her own actions?	Collect evidence of your development and ability to assess and evaluate the availability of renewable resources in your context, identifying potential developments using tools and methods for data analysis. Show that you understand what it entails. Collect evidence that you have applied these skills in different situations and autonomously.	The youngster can upload his collected evidence in BadgeCraft and the educator can judge on this basis (and what he has seen in practice) whether the youngster has achieved the ability or whether he needs to do something additional. If the ability is achieved, the educator can award the Open Badge.

Applying renewable solutions	<p>Collect information on:</p> <p>1. Main renewable resources and services and their characteristics</p> <p>2. Basic principles of different renewable sources</p> <p>3. The environmental impact of one's actions.</p> <p>Decide how these abilities can be of use for the youngster and how you can integrate these abilities in a learning activity</p>	<p>Do I pay attention to use renewable solutions at home or at workplace? Am I in the habit to use renewable resources?</p> <p>What I want to learn about this topic? Do I understand the concept of renewable services (public transportation; sustainable agriculture)?</p>	<p>Did you find that the youngster has a basic knowledge of different kind of renewable resources and services? Has he/she the habit of applying renewable resources and services in his/her daily choices? Is he/she capable of identifying potential developments in the use of renewable resources in his/her daily life and in his/her living and working context? If so, reflect on this with the youngster and be as concrete as possible</p>	<p>Do you know more about applying renewable resources and services? During the activity, have you been able to analyze your habits of use of renewable solutions in daily life and identify ways to develop them? Do you know more about the characteristics of different renewable resources and services and their availability in your context? Do you know more about methods to apply them?</p> <p>REQUIREMENTS</p> <p>-Ability to know how to use devices powered by renewable energy consciously (e.g., portable solar chargers).</p> <p>-Ability to follow basic instructions for using simple systems (e.g., home composting).</p> <p>- Ability to adopt daily behaviors that reduce energy consumption (e.g., turning off lights, using efficient appliances).</p> <p>- Knowledge and use of public transport or sustainable alternatives (bicycle, carpooling).</p> <p>- Having a rough idea of the initial costs and potential long-term savings of some domestic renewable solutions.</p>	<p>Discuss with the youngster on how he/she can practice with the ability to apply renewable solutions in everyday life.</p> <p>In what kind of situations can he/she practice this and how can others see that he uses these abilities?</p>	<p>Have a look at your ability to apply renewable solutions in your own environment, in different context and situations, including complex and unfamiliar ones. Are you able to recognize different renewable sources and to apply them? Are you able to solve problems and make informed decisions on this topic? Are you able to adapt knowledge to new contexts and generate new ideas?</p> <p>What have you already mastered and what do you need to practice? Discuss with your educator on how you can practice the ability. In what kind of situations can you practice this and how can others see that you use these abilities?</p> <p>REQUIREMENTS:</p> <p>- Ability to conceive, plan, and carry out practical projects such as installing small domestic solar systems (with supervision), creating efficient composting systems, or organizing initiatives to promote the use of public transport or shared mobility.</p> <p>- Ability to identify and solve complex problems related to the application of renewable solutions.</p> <p>- Stay updated on new technologies and innovations in the renewable energy sector.</p> <p>-ability to propose innovative solutions for the adoption of renewable solutions in different contexts.</p> <p>- Understand the challenges and opportunities of integrating renewable sources into the global energy system.</p>	<p>Did the youngster show the ability to apply renewable solutions in a correct way? Does he/she show the ability to apply renewable solutions, using tools and methods for data analysis?</p> <p>Does he/she know what the ability is about?. Is he/she able to apply the ability in different situations? Is the youngster able to reflect on his/her own actions?</p>	<p>Collect evidence of your development and ability in applying renewable solutions in your context. Show that you understand what it entails. That you have applied these skills in different situations and autonomously.</p>	<p>The youngster can upload his collected evidence in BadgeCraft and the educator can judge on this basis (and what he has seen in practice) whether the youngster has achieved the ability or whether he needs to do something additional. If the ability is achieved, the educator can award the Open Badge.</p>
Reducing waste and preserving resources	<p>Collect information on:</p> <p>1. Basic Environmental Science.</p> <p>2. Causes and Consequences of Overconsumption and Waste.</p> <p>3. Ecological Footprint.</p> <p>4. Circular Economy.</p> <p>5. Knowledge of Conservation Practices (Reducing Consumption; Minimizing Waste; Conservation of Natural Resources)</p> <p>6. Awareness of the local context. Decide how these abilities can be of use for the youngster and how you can integrate these abilities in a learning activity.</p>	<p>In my daily life, do I pay attention to limiting my consumption and avoiding waste? Do I pay attention to conserving natural resources (energy; water; food...)? What I want to learn about this topic? Am I aware about causes and consequences of overconsumption and waste?</p>	<p>Did you find that the student has a basic knowledge about causes and consequences of overconsumption and waste? Has he/she the habit to apply conservation practices in his/her daily choices? Is he/she capable of identifying potential developments in minimizing waste and reducing consumption in his/her daily life and in his/her living and working context? If so, reflect on this with the youngster and be as concrete as possible.</p>	<p>Do you know anything more about the importance of reducing consumption and minimizing waste to preserve resources? Are you aware that adopting small actions contributes to a greater good (environmental protection, resource saving)?</p> <p>How could you reduce waste and conserve resources in your daily life and at your workplace?</p> <p>REQUIREMENTS</p> <p>- ability to apply simple conservation practices (Energy saving; water saving; waste management; reducing consumption; reusing objects);</p> <p>- knowledge of how one's daily actions (energy and water consumption, waste production) affect the environment;</p> <p>- ability to follow local instructions for conservation practices.</p>	<p>Discuss with the youngster on how can/could he/she practice with the ability to conserve resources and minimize waste in everyday life.</p> <p>In what kind of situations can he/she practice this and how can others see that he uses these abilities?</p>	<p>Have a look at your ability to conserve resources and minimize waste in your life. Are you able to identify ways and tools to reduce waste and preserve resources? Are you able to solve problems and make informed decisions on this topic? Are you able to adapt knowledge to new contexts and generate new ideas?</p> <p>What have you already mastered and what do you need to practice. Discuss with your educator on how you can practice the ability. In what kind of situations can you practice this and how can others see that you use these abilities?</p> <p>REQUIREMENTS</p> <p>- ability to analyze and optimize consumption through footprint assessment</p> <p>- ability to targeted reduction strategies;</p> <p>-ability to apply consumption monitoring tools and techniques; ability to apply advanced waste management strategies.</p>	<p>Did the youngster show the ability to conserve resources and minimize waste ?</p> <p>Does he/she show the ability to conserve resources and minimize waste in his/her local context?</p> <p>Does he/she know what the ability is about? Is he/she able to apply the ability in different situations? Is the youngster able to reflect on his/her own actions?</p>	<p>Collect evidence of your development and ability in conserve resources and minimize waste. Show that you understand what it entails. That you have applied these skills autonomously.</p>	<p>The youngster can upload his collected evidence in BadgeCraft and the educator can judge on this basis (and what he has seen in practice) whether the youngster has achieved the ability or whether he needs to do something additional. If the ability is achieved, the educator can award the Open Badge.</p>
Advocacy and Education on renewable resources	<p>Collect information on:</p> <p>1. Basic Technical Knowledge on renewable resources;</p> <p>2. effective communication skills;</p> <p>3. Elements on the socio-economic and political context.</p>	<p>What is my level of understanding of the scientific basic and technical concepts related to renewable resources? How up-to-date am I on the latest innovations in the renewable sources sector? Do I feel comfortable speaking in public? Am I passionate about promoting renewable resources and sustainability? Am I able to express my opinions clearly and convincingly? Can I work in a team and collaborate with others to achieve common goals? What I want to learn about this topic?</p>	<p>Is the young person aware of the usefulness and effectiveness of using renewable resources? Does he/she know limits and problems related to the use of renewable resources? Has he/she an active and engaging attitude towards the topic? Is he/she able to express his/her ideas clearly and convincingly, involving other people? If so, reflect on this with the youngster and be as concrete as possible.</p>	<p>Do you have sufficient knowledge of the potential of renewable resources and at the same time of the problems connected to them? Do you think you have skills to involve and convince other people?</p> <p>Which skills do you think you possess and which ones would you like to develop further? What technical aspects, costs and timing should you take into consideration?</p> <p>REQUIREMENTS</p> <p>Ability to communicate basic concepts</p> <p>- Ability to explain the different renewable resources and the concept of resource assessment in a simple way.</p> <p>Recognize the importance of sustainability: understand the role of renewable resources in the transition towards a more sustainable energy system.</p>	<p>Discuss with the youngster on how can/could he/she practice with the ability to educate other people on renewable resources in everyday life.</p> <p>In what kind of situations can he/she practice this and how can others see that he uses these abilities?</p>	<p>Have a look at your ability to educate other people on renewable resources in your life. Are you able to engage others on the usefulness of renewable resources to live more sustainably? Do you have adequate knowledge of your context to provide valid arguments to convince others on the usefulness of renewable resources? Are you able to solve problems and make informed decisions on this topic? Are you able to adapt knowledge to new contexts and generate new ideas?</p> <p>What have you already mastered and what do you need to practice? Discuss with your educator on how you can practice the ability. In what kind of situations can you practice this and how can others see that you use these abilities?</p> <p>REQUIREMENTS</p> <p>-Ability to present the advantages and methods of using renewable resources and services, raising awareness and promoting sustainable behaviors clearly and concisely in the community and to different stakeholders (e.g., policymakers, investors, local communities) using technical reports, presentations, and effective data visualizations;</p> <p>- Ability to plan and carry out initiatives to promote resource conservation (e.g., awareness campaigns at school, local clean-up events).</p> <p>-Ability to collaborate with other individuals, groups, or organizations to promote sustainability on a broader level.</p>	<p>Did the youngster show the ability to involve and educate other people on the advantages and methods of using renewable resources and services, raising awareness and promoting sustainable behaviors clearly and concisely? Is he/she able to organize initiative and collaborate with others to organize events and/or initiative with the goal of promoting the use of renewable resources?</p> <p>Does he/she know what the ability is about. Is he/she able to apply the ability in different situations? Is the youngster able to reflect on his own actions?</p>	<p>Collect evidence of your development and ability to educate other people on renewable resources. Show that you understand what it entails. That you have applied these skills autonomously.</p>	<p>The youngster can upload his collected evidence in BadgeCraft and the educator can judge on this basis (and what he has seen in practice) whether the youngster has achieved the ability or whether he needs to do something additional. If the ability is achieved, the educator can award the Open Badge.</p>

Appreciating the Value of Renewables.	Collect information on: 1. Understanding Renewable Energy Sources 2. Recognising the intrinsic value of natural resources (environmental sustainability; conservation of natural resources; human health) 3. recognising the ecosystem services provided (climate regulation; water cycle; biodiversity; air and water quality) 4. economic and social value (job creation; energy independence; technological innovation; energy access) 5. Ethical and social justice aspects (intergenerational equity; climate justice).	Do I recognize the value of renewable resources from an environmental, ethical and economic point of view? Have I objective elements of evaluation?What I want to learn about this topic?	Is the young person able to recognize and appreciate the value of renewables? Does the young person demonstrate an understanding of the value of renewables from an environmental, ethical and economic point of view? Does the young person apply this awareness in his/her daily life? If so, reflect on this with the youngster and be as concrete as possible.	Do you know anything more about the value of renewables ? Are you aware of the importance of renewable resources from an environmental, economical and ethical point of view? In your daily life do you appreciate the value of renewable resources in a concrete and careful way? REQUIREMENTS Basic identification and description of renewables. Awareness and knowledge of the environmental (reduction of emissions, conservation of natural resources) and economic (savings on energy costs, reduced dependence on fossil fuels) advantages resulting from the use of renewable resources and services. Knowledge of practical examples (Identify common applications; understand the importance at a community/national level).	Discuss with the young person how he/she can enhance renewable resources in his/her life and work context. In what kind of situations can he/she practice this and how can others see that he uses these abilities?	Have a look at your ability to appreciate the value of renewables in everyday life. Are you able to recognize the general benefits of renewables sources in your context? Do you know methods and tools to enhance renewable resources in your living and working context? Are you able to identify solutions to improve the use of renewables sources as much as possible? Are you able to make informed decisions on this topic? Are you able to adapt your knowledge to new contexts and generate new ideas? What have you already mastered and what do you need to practice? Discuss with your educator on how you can practice the ability. In what kind of situations can you practice this and how can others see that you use these abilities? REQUIREMENTS - In-depth knowledge of technologies and systems - Critical analysis of advantages and disadvantages of renewable sources - Awareness of Innovations and future trends.	Does the youngster show the ability to enhance the value of renewable sources? Is he/she able to recognize the different benefits of renewable sources in the local and global context? Does he/she know methods and tools to analyze advantages and problems linked to renewable sources? Is he/she able to identify solutions to improve the use of renewable sources? Is he/she able to make informed decisions on this topic? Is he/she able to adapt knowledge to new contexts and generate new ideas? Do they show these abilities in an effective and autonomous way? Do they know what the ability is about? Is he/she able to apply the ability in different situations? Is the youngster able to reflect on his/her own actions?	Collect evidence of your development and ability in appreciate the value of renewables. Show that you understand what it entails and that you have applied these skills in different situations and autonomously.	The youngster can upload his collected evidence in BadgeCraft and the educator can judge on this basis (and what he has seen in practice) whether the youngster has achieved the ability or whether he needs to do something additional. If the ability is achieved, the educator can award the Open Badge.