



Dearbhú Cáilíochta
agus Cáilíochtaí Éireann
Quality and
Qualifications Ireland

QQI AWARDS STANDARDS.

Learning for Sustainability

December 2023



Foreword

The Qualifications and Quality Assurance Act 2012 requires QQI to ‘determine the standards of knowledge, skill or competence to be acquired, and where appropriate, demonstrated, by a learner before an award may be made by the Authority’. QQI award standards are based on the level indicators and award type descriptors of the National Framework of Qualifications (NFQ) and are governed by QQI Policy for the Determination of Award Standards.

Based on systematic engagement with subject matter expertise and public consultation, award standards for certain broad fields of learning were developed for QQI awards at level 1-4 on the NFQ. These standards represent an elaboration of the generic descriptors of the NFQ. They should facilitate experts in particular fields of learning to create the link between their programmes’ intended learning outcomes and the NFQ. Each award standard is cumulative, the statements of knowledge, skill and competence at NFQ levels 2, 3 and 4, build on the attainment of standards at lower levels, which are not necessarily reproduced at the higher level(s). The implementation and use of these standards is subject to QQI Policy and Criteria for the Validation of Programmes and QQI Policy for the Making of Awards. Whenever an award standard changes, programmes must be updated and validated against the new standards.

These standards are not programme specifications. It is through these, however, that the relationship between a programme, its component parts and the NFQ should be evident. The standards are a reference point and a point of comparison against which individual programmes may be justified.

They are intended to provide general guidance for articulating the learning outcomes associated with a particular field of learning. In designing programmes, providers must take cognisance of the standards for specific fields of learning where they generally relate to the programme being developed. It is, however, recognised that there is a significant growth in multi-disciplinary/inter-disciplinary programmes; there are emerging fields of learning; and in addition, within each field there is the vast spectrum of programmes possible based on a wide range of purpose. In this context, it is not possible to have a standard, or multiple standards, that cater for the complete range of programmes possible. It is therefore expected that the standards for specific fields of learning will be used as reference points for the design of programmes. In designing programmes, providers can draw from more than one standard.

In drafting the standards every effort has been made to ensure that they will provide for flexibility and variety in the design of programmes and therefore encourage innovation within an overall agreed framework. It is not expected that all programmes will include every learning outcome identified in a standard. It is, however, expected that many programmes will include learning outcomes that are not included in the relevant standard.

When designing a programme, each learning outcome in the standard should be considered. Where departure from these is necessary, it should be justified in the context of the specific orientation of the programme and other facts pertaining to it. Each programme provider should be able to demonstrate how the design and content of its own programmes has been informed by the standard.

The level descriptors of the Framework, the award type descriptors and consequently the standards for the specific fields of learning are divided into three different types of learning outcomes - knowledge, skill and competence. These strands are further subdivided into eight sub-strands. Each strand/sub-strand is important. The relative weighting of each strand in a programme will vary from programme to programme. The weighting will be determined by many factors, including for example, the practical nature of a programme, or otherwise.

Each strand/sub-strand should be addressed appropriately in every programme. Where a programme is multidisciplinary or inter-disciplinary in nature, the use of more than one standard may be necessary. In such cases, the scope, depth and balance of knowledge, skill and competence should be attended to.

The titles of awards made by QQI on foot of these award standards shall be consistent with QQI Policy on the Making of Awards with an exception in the case of major awards where the named award stem shall have the following form: 'Level X Certificate in Lifelong Learning in' [specialisation].

These standards are determined by QQI under section 49(1) of the Qualifications (Education and Training) Act 2012.



AWARD STANDARDS – LEARNING FOR SUSTAINABILITY (CORE COMPETENCE) AT NFQ LEVELS 1 TO 4

Purpose	The purpose of this broad award standard is to enable design of a variety of programmes enabling the learner to develop the relevant “green” knowledge, skill and competence, to act on climate and environmental sustainability in compliance with the European sustainability competence framework.
Context	The development of a European sustainability competence framework is one of the policy actions set out in the European Green Deal as a catalyst to promote learning on environmental sustainability in the European Union. The competence framework maps out the competences needed for the green transition, including critical thinking, initiative-taking, respecting nature and understanding the interconnections between the environment, society and the economy. *
References	<p>Please note that the above standard is aligned to the Key Competences for Lifelong Learning. This particular competence relates specifically to the GreenComp: The European Sustainability Competence Framework [Bianchi, G., Pisiotis, U., Cabrera Giraldez, M. GreenComp – <i>The European sustainability competence framework</i>. Bacigalupo, M., Punie, Y. (editors), EUR 30955 EN, Publications Office of the European Union, Luxembourg, 2022; ISBN 978-92-76-46485-3, doi:10.2760/13286. jrc128040_greencomp_f2.pdf (green-comp.eu)].</p> <p>Sustainability competence*</p> <p>A sustainability competence empowers learners to embody sustainability values, and embrace complex systems, in order to take or request action that restores and maintains ecosystem health and enhances justice, generating visions for sustainable futures.</p> <p>This definition focuses on developing sustainability knowledge, skills and attitudes for learners so they can think, plan and act with sustainability in mind, to live in tune with the planet. All types of learning – formal, non-formal, and informal – are considered as vectors for developing this competence in early childhood, through harvesting it as young kids and teenagers, to putting it into context as young adults and continuously nurturing it as adults. Sustainability as a competence applies to all spheres of life, both on personal and collective levels (Ibid:11).</p> <p>Teaching and learning sustainability competences</p> <p>Learning for environmental sustainability aims to nurture a sustainability mindset from childhood to adulthood with the understanding that humans are part of and depend on nature. Learners are equipped with knowledge, skills and attitudes that help them become agents of change and contribute individually and collectively to shaping futures within planetary boundaries. Learning for environmental sustainability has the potential to be a catalyst for change among young and adult generations, through the acquisition of sustainability competences (Ibid:13).</p> <p>*JRC Publications Repository - GreenComp The European sustainability competence framework (europa.eu)</p>

Note: The indicators at each level build on the skills from the previous one.

The outcomes at each NFQ level include those of all the lower levels in the same sub-strand unless stated otherwise.



KNOWLEDGE

NFQ	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Knowledge breadth	Elementary knowledge	Knowledge that is narrow in range	Knowledge moderately broad in range	Broad range of knowledge
Sustainability competence	The learner should be able to demonstrate:	The learner should be able to demonstrate:	The learner should be able to demonstrate:	The learner should be able to demonstrate:
Embodying sustainability values <ul style="list-style-type: none"> Valuing sustainability Supporting fairness Promoting nature 	<ul style="list-style-type: none"> Basic ideas and terms about sustainability Fairness as a basic value in preserving nature The main parts of the natural environment. 	<ul style="list-style-type: none"> The importance of sustainability Fairness is a value in preserving nature The basic connections between humans and the ecological system Biodiversity and sustainable development. 	<ul style="list-style-type: none"> The main views on sustainability The importance of biodiversity in sustainable development The influence of values and cultures on sustainability The effects of fairness in promoting sustainability Some consequences of human action on the ecological system. 	<ul style="list-style-type: none"> The main views on sustainability The importance of biodiversity in sustainable development The influence of values and cultures on sustainability The importance of sustainability within the human system of values The role of fairness in balancing the interests of current and future generations The importance of interrelations for sustainability.



<p>Embracing complexity in sustainability</p> <ul style="list-style-type: none"> • Systems thinking • Critical thinking • Problem-framing 	<p>The learner should be able to show they are aware of aspects of sustainability systems like:</p> <ul style="list-style-type: none"> • environment • society • culture • economy. <p>They should also know how complicated sustainability problems are.</p>	<ul style="list-style-type: none"> • Systems thinking for sustainability • The many viewpoints on the sustainability problem. 	<ul style="list-style-type: none"> • Sustainability as a complex social system • Common biases in knowledge claims about sustainability facts • Main problem-solving approaches (inductive and deductive reasoning). <p>Sustainability as a holistic concept that includes issues related to the environment, economy, society and culture.</p>	<ul style="list-style-type: none"> • The implications of systems thinking for sustainability • How to consider the accuracy of information about sustainability (greenwashing, misinformation) • The influence of ‘framing’ (shaping and presenting) information to address sustainability problems • How dynamic and unpredictable sustainability problems are.
<p>Adaptability and envisaging sustainable futures</p> <ul style="list-style-type: none"> • Futures literacy • Adaptability • Exploratory thinking 	<ul style="list-style-type: none"> • How human activity influences future sustainability prospects. <p>They should also be able to show they are aware about parts of their own lifestyle that affect sustainability like:</p> <ul style="list-style-type: none"> • air travel • car usage • meat consumption • fast fashion. <p>The learner should be aware of the value of exploration.</p>	<ul style="list-style-type: none"> • Unpredictable consequences of human actions on the environment. • Some basic sustainable development concepts • The benefit of ‘exploratory thinking’ to a sustainable future. 	<ul style="list-style-type: none"> • The role of scenario planning in making decisions about sustainable futures • How what happens locally is connected to global sustainability • The main concepts of sustainability in society and in a circular economy (where concepts like sharing, reusing and recycling, and so on, are central). 	<ul style="list-style-type: none"> • The effects of short-, medium- and long-term approaches for sustainability prospects • The demand and need for adaptable solutions to sustainability problems • The limitations of single solutions to complex social and environmental problems • Different disciplines, knowledge, cultures and conflicting views needed to tackle complex sustainability problems.



<p>Acting for sustainability</p> <ul style="list-style-type: none"> • Political agency • Collective action • Individual initiative 	<ul style="list-style-type: none"> • The principles governing environmental damage. For example: <ul style="list-style-type: none"> - prevention principle' of better to prevent damage than repair it or - polluter pays' such as paying for plastic carry bags to reduce plastic use) • How working with others helps to promote nature. 	<ul style="list-style-type: none"> • Responsibilities of environmental damage • How working together helps to promote fairness and respect for democracy • Stakeholders working to promote sustainability. 	<ul style="list-style-type: none"> • Policies that assign responsibility for environmental damage • How individuals and organisations can be encouraged to work together for a sustainable future. 	<ul style="list-style-type: none"> • Working together can create inclusive visions for a more sustainable future • Individual initiatives can bring about positive environmental change • Inaction is also a personal choice.
<p>Knowledge kind</p>	<p>Demonstrable by recognition or recall</p>	<p>Knowledge that is concrete and basic in comprehension</p>	<p>Knowledge that is mainly concrete and some comprehension of relationship between knowledge elements</p>	<p>Knowledge that is mainly concrete and with some elements of abstraction or theory</p>
	<p>The learner should be able to show they are aware about the following:</p>	<p>The learner should be able to show they are aware about the following:</p>	<p>The learner should be able to show they are aware about the following:</p>	<p>The learner should be able to show they are aware about the following:</p>
	<ul style="list-style-type: none"> • Environmental literacy • Different categories of information to describe sustainability problems – numbers and stories • Some key sustainability events • Sustainability champions • Importance of collaborative and community actions in promoting sustainability. 	<ul style="list-style-type: none"> • Environmental literacy • Reliable sources of information and data • Basic facts and figures about sustainability • Key trends and patterns indicating climate change • Importance of collaboration and action in the community to promote sustainability. 	<ul style="list-style-type: none"> • Environmental literacy • Basic models explaining what has already happened and predicting future direction for sustainable development • Key national and international agreements and conventions on sustainability. 	<ul style="list-style-type: none"> • Some established theories about the causes and consequences of sustainability problems • Some limitations of our knowledge about sustainability, including when knowledge is disputed • The difference between scientific and other forms of evidence about sustainability problems • Sustainable development goals.



KNOWLEDGE

NFQ	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Know-how and skill range	Demonstrate basic practical skills and carry out directed activity using basic tools	Demonstrate limited range of basic practical skills, including the use of relevant tools	Demonstrate a limited range of practical and cognitive skills and tools	Demonstrate a moderate range of practical and cognitive skills and tools
	The learner should be able to do the following:	The learner should be able to do the following:	The learner should be able to do the following:	The learner should be able to do the following:
Embodying sustainability values <ul style="list-style-type: none"> Valuing sustainability Supporting fairness Promoting nature 	<ul style="list-style-type: none"> Record how their own actions impact on nature. 	<ul style="list-style-type: none"> Appreciate various cultures in relation to sustainability Find opportunities to interact with nature sustainably. 	<ul style="list-style-type: none"> Negotiate sustainability values while recognising different viewpoints Appreciate and respect various cultures in relation to sustainability. 	<ul style="list-style-type: none"> Make decisions and act in line with sustainability values and principles Respect and appreciate various cultures in relation to sustainability in an inclusive manner Share, clarify and promote views on sustainability values.
Embracing complexity in sustainability <ul style="list-style-type: none"> Systems thinking Critical thinking Problem-framing 	<ul style="list-style-type: none"> Collect basic information on known sustainability issues Appreciate different viewpoints on a single sustainability problem. 	<ul style="list-style-type: none"> Document some interactions between environmental, economic, cultural and social aspects of sustainability Take account of others' views on a simple sustainability problem. 	<ul style="list-style-type: none"> Interpret data on sustainability from a narrow range of sources Apply a systemic approach to explore a well-defined sustainability problem. 	<ul style="list-style-type: none"> Make reasonable arguments about sustainability issues Apply a flexible (lifecycle) approach when addressing well-defined sustainability problems.



	The learner should be able to show the following:	The learner should be able to show the following:	The learner should be able to show the following:	The learner should be able to show the following:
Adaptability and envisaging sustainable futures <ul style="list-style-type: none"> • Futures literacy • Adaptability • Exploratory thinking 	<ul style="list-style-type: none"> • Curiosity, creativity and willingness to take part in initiatives that lead to a more sustainable future • Curiosity about the natural environment. 	<ul style="list-style-type: none"> • Adapt to a lifestyle that uses fewer natural resources • Have a positive attitude while making conscious sustainable choices • Respect others' views about sustainability. 	<ul style="list-style-type: none"> • Imagine different futures for sustainability that are based on science, creativity and sustainability values • Apply circular economy concepts like reduce, reuse, repair, recycle • Take account of different views on sustainability. 	<ul style="list-style-type: none"> • Combine relevant knowledge and resources to tackle sustainability problems • Consider local circumstances when dealing with sustainability issues and opportunities.
	The learner should be able to do the following:	The learner should be able to do the following:	The learner should be able to do the following:	The learner should be able to do the following:
Acting for sustainability <ul style="list-style-type: none"> • Political agency • Collective action • Individual initiative 	<ul style="list-style-type: none"> • Take part in local civic activities for sustainable development • Show an interest in working with family members and their own community on a sustainable future • Identify ways to avoid waste in their lifestyle and consumption patterns. 	<ul style="list-style-type: none"> • Show interest in working with others in their community on a sustainable future. • Identify possible stakeholders for joint action on sustainability problems. 	<ul style="list-style-type: none"> • Take part in public debate about sustainability problems • Make simple political arguments and choices • Work with others in their own community on sustainable future • Take part in democratic decision-making and civic activities for sustainable development. 	<ul style="list-style-type: none"> • Identify and get in touch with the relevant social, political and economic stakeholders in their own community to address a sustainability problem • Collaborate with others in their own community on sustainability problems • Take personal initiative for achieving sustainability objectives by using circular economy principles.



Know-how and skill selectivity	Perform processes that are repetitive and predictable	Perform a sequence of routine tasks given clear direction	Select from a limited range of varied procedures and apply known solutions to a limited range of predictable problems	Select from a range of procedures and apply known solutions to a variety of predictable problems
	The learner should be able to gather relevant information on sustainability problems.	The learner should be able to interpret simple data and convert into meaningful information.	The learner should be able to take part in appropriate initiatives that lead to a more sustainable future.	The learner should be able to use a holistic approach to solve routine sustainability problems.

KNOWLEDGE

NFQ	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Competence context	Act in closely defined and highly structured contexts	Act in a limited range of predictable and structured contexts	Act within a limited range of contexts	Act in familiar and unfamiliar contexts
Embodying sustainability values <ul style="list-style-type: none"> • Valuing sustainability • Supporting fairness • Promoting nature 	The learner should act appropriately in line with values and principles for sustainability in highly structured contexts.	The learner should act appropriately in line with values and principles for sustainability in a limited range of predictable contexts.	The learner should act appropriately in line with values and principles for sustainability in a limited range of contexts.	The learner should act appropriately in line with values and principles for sustainability in familiar and unfamiliar contexts.



<p>Embracing complexity in sustainability</p> <ul style="list-style-type: none">• Systems thinking• Critical thinking• Problem-framing	<p>The learner should show the following:</p> <ul style="list-style-type: none">• An appreciation of short- and long-term consequences of their actions on sustainability• Curiosity about the relationship between human activity and the environment.	<p>The learner should show the following:</p> <ul style="list-style-type: none">• Care about systemic consequences of environmental crises. For example, pollution from traffic in urban areas can lead to more health issues• Awareness of commonly known scientific evidence.• Appreciation of values and beliefs of others, respecting diversity of views.	<p>The learner should show the following:</p> <ul style="list-style-type: none">• Concern about unpredictable consequences of human activity on sustainability• Trust in scientific evidence• Ability to frame (view) a simple sustainability problem in a complete way (holistic and systemic).	<p>The learner should take action as follows:</p> <ul style="list-style-type: none">• Take responsibility for their actions and their effects on nature• Adopt an evidence-informed approach when addressing a well-defined sustainability problem• Recognise bias and subjectivity in relation to sustainability problems• Respond appropriately where information is incomplete or disputed• Show empathy when working with others on sustainability problems.
<p>Acting for sustainability</p> <ul style="list-style-type: none">• Political agency• Collective action• Individual initiative	<p>The learner should act with a sense of belonging to one's locality.</p>	<p>The learner should act with a sense of belonging to one's locality and care proactively for the planet.</p>	<p>The learner should act with a sense of belonging to one's locality in line with sustainability values and principles.</p>	<p>The learner should advocate for:</p> <ul style="list-style-type: none">• individuals• collective care• those in need• the planet.



KNOWLEDGE

NFQ	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Competence role	Act in a limited range of roles	Act in a range of roles under direction	Act under direction with limited autonomy; function within familiar, homogenous groups	Act with considerable amount of responsibility and autonomy
Embodying sustainability values <ul style="list-style-type: none"> Valuing sustainability Supporting fairness Promoting nature 	<p>The learner should show the following:</p> <ul style="list-style-type: none"> A willingness to explore the practical implications of sustainability in day-to-day life Awareness of opportunities to decrease their own material consumption 	<p>The learner should look for opportunities like the following:</p> <ul style="list-style-type: none"> To act in line with values and principles for sustainability To increase sustainable choices (decrease material consumption) in the interests of the planet and future generations. 	<p>The learner should follow opportunities like the following:</p> <ul style="list-style-type: none"> To act in line with values and principles for sustainability To decrease material consumption in the interests of the planet and future generations. 	<p>The learner should take responsibility for the following:</p> <ul style="list-style-type: none"> Acting with an open and positive attitude to the world Having a clear understanding of how climate action and sustainable development are interconnected Following up on opportunities to decrease material consumption in the interests of the planet and future generations.
Adaptability and envisaging sustainable futures <ul style="list-style-type: none"> Futures literacy Adaptability Exploratory thinking 	<p>The learner should show the following:</p> <ul style="list-style-type: none"> Openness to change their own ways of thinking and acting sustainably Curiosity about sustainability challenges and opportunities. 	<p>The learner should show a willingness to do the following:</p> <ul style="list-style-type: none"> Consider sustainability challenges and opportunities from different angles Consider new possibilities and alternative futures. 	<p>The learner should show a willingness to explore different solutions to sustainability problems.</p>	<p>The learner should show the following:</p> <ul style="list-style-type: none"> Flexibility in coping with unexpected environmental changes A positive attitude towards experimentation even if it doesn't always work, but has helped advance knowledge Concern about the impact of their own action on the future.



<p>Acting for sustainability</p> <ul style="list-style-type: none">• Political agency• Collective action• Individual initiative	<p>The learner should show a willingness to do the following:</p> <ul style="list-style-type: none">• Take part in highly familiar and fully supported civic activities• Take care of people and nature.	<p>The learner should show a willingness to do the following:</p> <ul style="list-style-type: none">• Take part in civic activities under direction• Support actions that avoid or reduce the use of natural resources• Act with a sense of belonging to their own community• Care proactively for the planet.	<p>The learner should show a willingness to do the following:</p> <ul style="list-style-type: none">• Take part in democratic decision-making• Act with a sense of belonging to their own community in line with sustainability values and principles• Challenge the status quo.	<p>The learner should show a willingness to do the following:</p> <ul style="list-style-type: none">• Take part in democratic decision-making at all levels• Acknowledge the emotional impact of climate change, loss of biodiversity and impoverishment• Advocate for fairness and equity for all• Act as a champion for a better, more sustainable future• Be objective when framing a sustainable problem.
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KNOWLEDGE

NFQ	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Competence learning to learn	Learn to sequence learning tasks; learn to access and use a range of learning resources	Learn to learn in a disciplined manner in a well-structured and supervised environment	Learn to learn within a managed environment	Learn to take responsibility for own learning within a supervised environment
Embodying sustainability values <ul style="list-style-type: none"> Valuing sustainability Supporting fairness Promoting nature 	The learner should show a positive attitude and curiosity about the world and promoting nature.	The learner should show an enthusiasm to do the following: <ul style="list-style-type: none"> Learn about various cultures in relation to sustainability Learn about sustainable habits and routines Learn about more sustainable choices like ethical thinking related to consumption and waste processes. 	The learner should explore their own 'green' interests to learn sustainable habits and routines.	The learner should show a positive attitude in their actions to help reduce the use of natural resources.
Adaptability and envisaging sustainable futures <ul style="list-style-type: none"> Futures literacy Adaptability Exploratory thinking 	The learner should show willingness to do the following <ul style="list-style-type: none"> Support sustainability literacy Use fewer natural resources, for example, burn smokeless coal and eating less meat. 	The learner should act with an open and positive attitude to the world and imagine future possibilities.	The learner should try alternative solutions to reduce unsustainable lifestyle choices.	The learner should show willingness to do the following <ul style="list-style-type: none"> Use a lifecycle approach when assessing the risks and benefits of human action Promote awareness about sustainability literacy among others.



<p>Acting for sustainability</p> <ul style="list-style-type: none"> • Political agency • Collective action • Individual initiative 		<p>The learner should show willingness to give back to the community and nature.</p>	<p>The learner should work with others to challenge the status quo and make a positive difference.</p>	<p>The learner should show willingness to act on environmental and social sustainability causes.</p>
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KNOWLEDGE

NFQ	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
<p>Competence insight</p>	<p>Begin to <i>demonstrate</i> awareness of independent role for self</p>	<p>Demonstrate awareness of independent role for self</p>	<p>Assume limited responsibility for consistency of self-understanding and behaviour</p>	<p>Assume partial responsibility for consistency of self-understanding and behaviour</p>
<p>Embodying sustainability values</p> <ul style="list-style-type: none"> • Valuing sustainability • Supporting fairness • Promoting nature 	<p>The learner should show the following:</p> <ul style="list-style-type: none"> • Care and appreciation of various life forms • Curiosity and willingness to act in line with sustainability values and principles. 	<p>The learner should show the following:</p> <ul style="list-style-type: none"> • Empathy for various life forms • Active interest in opportunities to act sustainably. 	<p>The learner should show the following:</p> <ul style="list-style-type: none"> • Awareness of their own values and beliefs about sustainability • An open-minded approach to other values and worldviews on sustainability. 	<p>The learner should show the following:</p> <ul style="list-style-type: none"> • Responsibility for the environment by making sustainable lifestyle choices • Commitment to change for a more inclusive and fair future.



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