

City & Guilds Level 2 Award in Sustainability and the Green Environment (7617-02)

Version 1.1 (December 2022)

Qualification Handbook

Qualification at a glance

Subject area	Construction
City & Guilds number	7617
Age group approved	Pre16, 16+
Entry requirements	None
Assessment	Short answer question paper
Grading	Pass / Fail
Approvals	Fast track approval
Support materials	Qualification handbook, sample assessments
Registration and certification	Consult the Walled Garden/Online Catalogue for last dates

Title and level	City & Guilds qualification number	Regulatory reference number	GLH	TQT
City & Guilds Level 2 Award in Sustainability and the Green Environment	7617-02	610/1201/4	30	33

Version and date	Change detail	Section
v1.0 September 2022	Initial version	All
v1.1 December 2022	Add City & Guilds Level 2	Page 6
v1.1 December 2022	Remove Portfolio of Evidence	Page 11
v1.1 December 2022	Change "invigilated" to "supervised"	Page 12
v1.1 December 2022	Amend - 36/60	Page 12
v1.1 December 2022	Add into 3.2 "Inequalities in different regions"	Page 18
v1.1 December 2022	Add City & Guilds	Page 20

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1 Introduction

This document tells you what you need to do to deliver the qualification:

Area	Description
Who is the qualification for?	This qualification is aimed at learners who wish to understand sustainable working practices for a specific job role, future job role and ongoing training. It is especially useful for those who want to work within sustainability or who have been given responsibility for sustainability within their organisations. This qualification is designed for use across all sectors. This qualification is suitable for those who desire to develop or improve their knowledge and understanding of Sustainability and the Green Environment in a range of industries and sectors. It would be particularly useful for Sustainability Officers and those with job roles which have responsibilities for sustainability reviews and planning within businesses and organisations.
What does the qualification cover?	This qualification is for learners (irrespective of their sector of study) to develop knowledge and understanding of the terms environment, sustainability, climate change and net zero as they relate to a green future. Learners will explore the definitions, categories, components and human and non-human impacts of the environment. Learners will explore the definitions, pillars, actors and green technologies relating to sustainability. They will explore the topics of greenhouse gases, sources, targets and their effects on climate change. Learners will explore the carbon context, carbon footprint as well as national and international policy on net zero.
What opportunities for progression are there?	This award will enable learners to develop basic awareness of the Sustainability and the Green Environment. It can be a starting point for a career progression where learners can further develop into professional roles as they relate to the green economy.

Area	Description
Who did we develop the qualification with?	This qualification has been developed in collaboration with industry specialists and established lecturers and assessors.
Is it part of an apprenticeship framework or initiative?	The City & Guilds Level 2 Award in Sustainability and the Green Environment is not an apprenticeship, but it could be taken as a value added off the job training qualification to enable apprentices to learn about the evolving Sustainability and the Green Environment industry. It can be embedded into the apprentices learning journey to support the relevance to the current industry climate. This Award can be delivered as a stand alone qualification or used in an induction programme or integrated with a longer programme of study within a vocational area.

Structure

To achieve the City & Guilds Level 2 Award in Sustainability and the Green Environment, learners must achieve one mandatory unit.

City & Guilds unit number	Unit title	GLH
Mandatory units:		
Learners must achieve one mandatory units.		
201	Sustainability and the Green Environment	30

Total Qualification Time (TQT)

Total Qualification Time (TQT) is the number of notional hours which represents an estimate of the total amount of time that could reasonably be expected for a learner to demonstrate the achievement of the level of attainment necessary for the award of a qualification.

TQT is comprised of the following two elements:

- 1) The number of hours that an awarding organisation has assigned to a qualification for Guided Learning, and
- 2) An estimate of the number of hours a learner will reasonably be likely to spend in preparation, study or any other form of participation in education or training, including assessment, which takes place as directed by - but, unlike Guided Learning, not under the immediate guidance or supervision of - a lecturer, supervisor, tutor or other appropriate provider of education or training.

Title and level	GLH	TQT
City & Guilds Level 2 Award in Sustainability and the Green Environment	30	33

2 Centre requirements

Approval

Fast track approval

If your centre is an approved centre then you can apply for fast track approval for 7617-02 using the fast track approval form, available from the City & Guilds website.

Centres should use the fast track form if:

- there have been no changes to the way the qualifications are delivered, and
- they meet all of the approval criteria in the fast track form guidance notes.

Fast track approval is available for 12 months from the launch of the qualification. After 12 months, centres will have to go through the standard Qualification Approval Process. The centre is responsible for checking that fast track approval is still current at the time of application.

Please refer to the document **Quality Assurance Standards: Centre Approval Process** for further information.

Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualification before designing a course programme.

Resource requirements

Centre staffing

Staff delivering these qualifications must be able to demonstrate that they meet the following occupational expertise requirements. They should:

- be occupationally competent or technically knowledgeable in the area(s) for which they
 are delivering training and/or have experience of providing training. This knowledge
 must be to the same level as the training being delivered
- have recent relevant experience in the specific area they will be assessing
- have credible experience of providing training.

Continuing professional development (CPD)

Centres are expected to support their staff in ensuring that their knowledge remains current of the occupational area and of best practice in delivery, mentoring, training, assessment and quality assurance, and that it takes account of any national or legislative developments.

Quality assurance

Approved centres must have effective quality assurance systems to ensure optimum delivery and assessment of qualifications. Quality assurance includes initial centre approval, qualification approval and the centre's own internal procedures for monitoring quality. Centres

are responsible for internal quality assurance and City & Guilds is responsible for external quality assurance. For more detail on this visit the <u>Quality Assurance Standards</u> documents on the City & Guilds website.

Standards and rigorous quality assurance are maintained by the use of:

- Internal quality assurance
- · City & Guilds external quality assurance.

In order to carry out the quality assurance role, Internal Quality Assurers must

- have appropriate teaching and vocational knowledge and expertise
- have experience in quality management/internal quality assurance
- hold or be working towards an appropriate teaching/training/assessing qualification
- be familiar with the occupation and technical content covered within the qualification.

External quality assurance for the qualification will be provided by City & Guilds EQA process. EQAs are appointed by City & Guilds to approve centres, and to monitor the assessment and internal quality assurance carried out by centres. External quality assurance is carried out to ensure that assessment is valid and reliable, and that there is good assessment practice in centres.

The role of the EQA is to:

- provide advice and support to centre staff
- ensure the quality and consistency of assessments within and between centres by the use of systematic sampling
- provide feedback to centres and to City & Guilds.

Learner entry requirements

City & Guilds does not set entry requirements for these qualifications. However, centres must ensure that candidates have the potential and opportunity to gain the qualification successfully.

Age restrictions

This qualification is approved for learners aged 14-16/16 or above.

Access to assessment and special consideration

For information on how to apply for access arrangements please refer to *How and when to apply for access arrangements and special consideration (cityandguilds.com)*

3 Delivering the qualification

Initial assessment and induction

An initial assessment of each learner should be made before the start of their programme to identify:

- · if the learner has any specific training needs
- support and guidance they may need when working towards their qualification
- any units they have already completed, or credit they have accumulated which is relevant to the qualification
- the appropriate type and level of qualification.

We recommend that centres provide an induction programme so the learner fully understands the requirements of the qualification, their responsibilities as a learner, and the responsibilities of the centre. This information can be recorded on a learning contract.

Support materials

The following resources are available for this qualification:

Description	How to access
Qualification handbook	www.cityandguilds.com
Sample assessments	www.cityandguilds.com

4 Assessment

Assessment of the qualification

Candidates must:

successfully complete x1 short answer question paper for the mandatory unit.

Assessment Types			
Unit	Title	Assessment method	Where to obtain assessment materials
201	Sustainability and the Green Environment	Externally set, internally marked short answer question paper	www.cityandguilds.com

Assessment strategy

City & Guilds has written the following assessments to use with this qualification:

- live short answer question papers which can be downloaded from the City & Guilds website
- sample short answer question paper, which can be downloaded from the City & Guilds website.

Time constraints

The following must be applied to the assessment of this qualification:

the assessment must be completed within the learner's period of registration.

Written Assessments

The controlled assessment (short answer written test) must be carried out in a suitable classroom able to accommodate a maximum number of ten candidates.

All written assessments should be conducted according to the Joint Council for Qualifications (JCQ) Instructions for Conducting Examinations (ICE). This document contains detailed information on the administration of examinations before, during and after.

Test specifications

The way the knowledge is covered by each short answer question paper is laid out in the table below:

Assessment title: Sustainability and the Green Environment

Assessment type: Short answer questions

Assessment conditions: Closed book, supervised

Duration: 1 hour 30 minutes

Graded: Pass/Fail

Pass Mark: The pass mark for this examination is set at approx. 60% (36/60)

These boundaries may be subject to slight variation to ensure fairness should any variations in the difficulty of the test be identified.

Test:	Duration: 1 hour 30 minutes		
Unit	Outcome	Number of marks	Percentage %
201	LO1 Understand factors impacting on our environment	15	25
	LO2 Understand sustainability and factors affecting it	15	25
	LO3 Understand the short and long term impacts of climate change	15	25
	LO4 Understand the effects of carbon emissions and how they can be managed	15	25
	Total	60	100%

5 Grading

Grading of qualification

The single assessment is to be graded Pass/Fail and it will be the overall qualification grade.

For full details on how to grade the qualification, refer to the Assessment Pack available on the qualification page of **www.cityandguilds.com**.

City & Guilds will provide the following assessment materials:

• short answer question papers and answer packs, including different versions

The assessment materials are password protected and can be found on the City & Guilds website:

https://www.cityandguilds.com/qualifications-and-apprenticeships/construction/construction/7617-sustainability-the-green-environment#tab=information

The password is available to registered centres on the Walled Garden.

6 Units

Structure of the units

These units each have the following:

- City & Guilds reference number
- Title
- Level
- Guided learning hours (GLH)
- Unit aim
- Assessment type
- Learning outcomes, which are comprised of a number of assessment criteria
- Range statements.

Centres must deliver the full breadth of the range. Specialist equipment or commodities may not be available to all centres, so centres should ensure that their delivery covers their use. This may be covered by a practical demonstration (eg video).

Guidance for delivery of the units

This qualification is comprised of one **unit**. A unit describes what is expected of a competent person in particular aspects of his/her job.

Each **unit** is divided into **learning outcomes** which describe in further detail the skills and knowledge that a candidate should possess.

Each **learning outcome** has a set of **assessment criteria** (performance, and knowledge and understanding) which specify the desired criteria that must be satisfied before an individual can be said to have performed to the agreed standard.

Range statements define the breadth or scope of a learning outcome and its assessment criteria by setting out the various circumstances in which they are to be applied.

Supporting information provides guidance of the evidence requirement for the unit and specific guidance on delivery and range statements. Centres are advised to review this information carefully before delivering the unit.

Unit 201

Sustainability and the Green Environment

Level:	2
GLH:	30
Assessment type:	Short answer question paper
Aim:	The purpose of this unit is for learners (irrespective of their sector of study) to develop a basic understanding of the terms Environment, Sustainability, Climate Change and Net Zero as they relate to a green skills future. They will explore the definitions, categories, components and human and non-human impacts of the Environment. Learners will explore the definitions, pillars, actors and green technologies relating to Sustainability. They will explore greenhouse gases, sources, targets and their effects on Climate Change. Learners will explore the carbon context, carbon footprint as well as national and international policy on net zero.

Learning outcome

The learner will:

LO1 Understand factors impacting on our environment

Assessment criteria

The learner can:

- AC1.1 define different parts of the environment
- AC1.2 describe the categories of the environment
- AC1.3 describe the components of the environment
- AC1.4 understand environmental impacts on the planet

Range

AC1.1 parts of the environment

- air (atmosphere)
- rocks (lithosphere)
- soil, microbes, plants and animals (biosphere)
- water (hydrosphere)

AC1.2 categories of the environment

natural environment

- semi-natural environment
- non-natural environment (human made)

AC1.3 components of the environment

- abiotic components (air, sunlight, soil, water, temperature, chemical elements)
- biotic components (microbes, plants, algae, animals)
- habitats (soil, woodland, aquatic)

AC1.4 environmental impacts

- forest fires
- evolution
- · climate change
- earthquakes
- volcanoes
- farming
- urbanisation,
- climate change
- deforestation
- fishing

Learning outcome

The learner will:

LO2 Understand sustainability and factors affecting it

Assessment criteria

The learner can:

- AC2.1 define the term "sustainability" in the context of green economy
- AC2.2 describe the pillars of sustainability
- AC2.3 describe the various actors and influences in sustainability
- AC2.4 describe the emerging green technologies due to sustainability

Range

AC2.1 sustainability

- current resource use
- future resource use
- · resource protections
- · resource damage

AC2.2 pillars of sustainability

- economic
- environmental
- societal

AC2.3 actors and influences

- government legislation Environment Act (2021)/Hazard Waste Regulations (2005/2016 amend)/Environment Act (1995)/Hazardous Waste Regulations (2005/2016 (amend)/Next Generation Act (Wales)/Environment Protection Act (1990)/The Waste Electrical and Electronic Equipment Directive (WEEE) (2007)/Environmental Permitting Regulations (2010)/Climate Change Act (2008)/Climate Change and Sustainable Energy Act (2006)/The Environment Act (2021)
- government organisations Environment Agency/Natural Resources Wales/Scottish Environmental Protection Agency
- non-government organisations
- private sector
- communities
- individual role models
- personal responsibility (energy use, recycling)

AC2.4 green technologies

- electric vehicles
- solar power
- wind power
- air, water and ground-source heating
- hydro power
- tidal power
- geothermal
- · anaerobic digestion
- Replace/Reduce/Re-use/Recycle

Learning outcome

The learner will:

LO3 Understand the short and long term impacts of climate change

Assessment criteria

The learner can:

- AC3.1 describe the four main **greenhouse** gases relating to carbon literacy
- AC3.2 describe the general effects of greenhouse gases and climate change on **global** warming

AC3.3 describe the sources and targets of **emissions**

Range

AC3.1 greenhouse gases

- carbon-dioxide
- methane
- nitrous oxide
- ozone
- water vapour
- carbon dioxide equivalents (greenhouse gases counted as carbon dioxide)

AC3.2 effects

- · greenhouse gas
- global warming
- global cooling
- rising sea waters
- melting ice caps
- desertification
- loss of biodiversity
- · changes to agriculture and food production
- population migration
- · inequalities in different regions

AC3.3 emissions

- natural volcanos, vegetation, soil, oceans, animals
- human made energy supply, transport, business, industry, residential, public sector, agriculture, land management, waste
- reductions through efficiency, renewable energy, carbon sequestration (capture)

Learning outcome

The learner will:

LO4 Understand the effects of carbon emissions and how they can be managed

Assessment criteria

The learner can:

- AC4.1 describe what **net zero** carbon emission are and how this is measured, modelled, captured and stored
- AC4.2 describe planning **carbon reductions** as they relate to net zero
- AC4.3 describe the national and international policy on net zero

Range

AC4.1 carbon emissions

- history of carbon emissions
- measuring carbon emissions
- carbon capture and storage
- definition of net zero

AC4.2 carbon reductions

- history of carbon footprinting
- carbon footprinting for individuals/businesses/organisations
- carbon scoping
- planning for net zero
- developing realistic timescales
- · developing realistic targets

AC4.3 policy on net zero

- local, regional and international policy
- Intergovernmental Panel on Climate Change (IPCC)
- sector commitments to net zero

Appendix 1 Relationships to other qualifications

Links to other qualifications

This qualification has connections to the:

• City & Guilds Level 2 Award in Retrofit

Useful resources

- https://www.gov.uk/government/publications/net-zero-strategy
- https://www.gov.uk/government/publications/environmental-and-sustainability-policy
- https://ukcop26.org/the-conference/cop26-outcomes/
- https://www.un.org/en/sustainable-development-goals

Appendix 2 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the <u>Centre Document Library</u> on <u>www.cityandguilds.com</u> or click on the links below:

Quality Assurance Standards: Centre Handbook

This document is for all approved centres and provides guidance to support their delivery of our qualifications. It includes information on

- Centre quality assurance criteria and monitoring activities
- Administration and assessment systems
- Centre-facing support teams at City & Guilds / ILM
- Centre quality assurance roles and responsibilities.

The Centre Handbook should be used to ensure compliance with the terms and conditions of the Centre Contract.

Quality Assurance Standards: Centre Assessment

This document sets out the minimum common quality assurance requirements for our regulated and non-regulated qualifications that feature centre assessed components. Specific guidance will also be included in relevant qualification handbooks and/or assessment documentation.

It incorporates our expectations for centre internal quality assurance and the external quality assurance methods we use to ensure that assessment standards are met and upheld. It also details the range of sanctions that may be put in place when centres do not comply with our requirements, or actions that will be taken to align centre marking/assessment to required standards. Additionally, it provides detailed guidance on the secure and valid administration of centre-assessments.

<u>Access arrangements - When and how applications need to be made to City & Guilds</u> provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The <u>Centre Document Library</u> also contains useful information on such things as:

- Conducting examinations
- Registering learners
- Appeals and malpractice

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City & Guilds

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We partner with our customers to deliver work-based learning programmes that build competency to support better prospects for people, organisations and wider society. We create flexible learning pathways that support lifelong employability, because we believe that people deserve the opportunity to (re)train and (re)learn again and again – gaining new skills at every stage of life, regardless of where they start.

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