



## **Group Award Specification for:**

**Built Environment within a Global Infrastructure at  
SCQF level 6**

**Group Award Code: GW0N 46**

**Validation date: July 2025**

**Date of original publication: August 2025**

**Version: 01**

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# 1. Introduction

The purpose of this document is to:

- Assist centres to implement, deliver and manage the qualification.
- Provide a guide for new staff involved in offering the qualification.
- Inform course managers teaching staff, assessors, learners, employers and higher education institutes (HEIs) of the aims and purpose of the qualification.
- Provide details of the range of learners the qualification is suitable for and progression opportunities.

## Main purpose

The title Built Environment within a Global Infrastructure for this National Progression Award (NPA) reflects the profound and integral relationship between these two interconnected concepts. The course aims to provide learners with a foundational understanding that the construction industry, encompassing all built environment projects, inherently relies on broader systems which constitute global infrastructure. Conversely, this very global infrastructure frequently manifests as large-scale physical structures within the built environment. From an overall course perspective, this qualification prepares learners by developing their knowledge and understanding of skills essential for managers in the modern construction and civil engineering industries. It aims to equip individuals embarking on professional careers in civil engineering, construction management, or the built environment generally. The mandatory units within this NPA specifically underscore this interconnectedness by focusing on core competencies that are crucial for projects of all scales, from individual buildings to extensive infrastructure.

This qualification gives learners a broad understanding of how construction projects — from homes and schools to transport networks and utility services — are planned, built, and supported in today's world. It encourages learners to see the built environment as part of a much larger picture, involving people, resources, communication, and energy networks that all work together.

By combining learning across sustainability, project management, and technical communication, the course helps learners develop practical knowledge and essential skills that are valued across the construction and infrastructure sectors. It prepares learners to think critically, communicate clearly, and apply safe and sustainable working practices — whether they choose to continue in education, pursue an apprenticeship, or step into employment.

### **Broad knowledge and skills developed**

Learners completing this qualification will develop a broad range of knowledge and skills that are essential for success in the construction and infrastructure sectors. These include:

#### **Sustainability in Construction**

Understanding sustainable construction practices and their importance in reducing the environmental impact of building projects.

#### **Project Management**

Ability to explain and describe construction project management, including planning, execution, and oversight of construction projects.

Skills in managing resources, timelines, and budgets to ensure successful project completion.

#### **Technical Communication**

Effective communication skills tailored to the construction industry, including technical writing, reporting, and documentation.

Proficiency in using digital tools and software for drafting, designing, and presenting construction plans and documents.

## **Construction Technology and Techniques**

Knowledge of modern construction methods, materials, and technologies.

Practical skills in areas such as computer-aided drafting (CAD) and construction measurement.

## **Health and Safety**

Some understanding of health and safety regulations and practices within the construction industry.

Ability to implement and maintain safety standards on construction sites to ensure a safe working environment.

## **Mathematical and Analytical skills**

Application of mathematical principles and techniques to solve construction-related problems.

Analytical skills to assess and improve construction processes and outcomes.

## **Specialised knowledge areas**

Depending on the chosen career pathway (Built Environment Project or Civil Engineering Project), learners will gain specialised knowledge in their area of focus. The progression diagram (Appendix 1) shows how a range of courses may allow entry towards this course. In terms of progression this is detailed in the diagram. This course may lead to a Graduate apprenticeship or further study. Topics may include civil engineering materials, environmental building science, structural concepts, and sustainable design for architecture.

Overall, the NPA Built Environment within a Global Infrastructure aims to produce learners who are not only technically proficient but also capable of contributing to the sustainability and innovation of the construction industry. By integrating practical skills with theoretical knowledge, this qualification prepares learners for employment

or further education in specialised fields, ensuring they can meet the evolving demands of the industry.

**Entry to the qualification** — Do learners need to have any specific qualifications or experience to do this qualification?

The NPA Built Environment within a Global Infrastructure is designed to be accessible to a wide range of learners, including those who are new to the construction and infrastructure sectors. However, to ensure that learners can successfully engage with the course material and meet the qualification standards, certain entry requirements are recommended:

To succeed in the NPA Built Environment within a Global Infrastructure, learners may benefit from:

**Educational background:** Secondary education, ideally with National 5 (or equivalent) in Mathematics, Physics, Engineering Science or Graphic Communications.

**Relevant experience:** Not required but experience in fields like construction, technical drawing, project management, or environmental science can enhance understanding.

**Skills and competencies:** Sound foundation of mathematics, technical drawing skills, and computer literacy are valuable for tasks like calculations and computer-aided drafting (CAD).

**Interest and motivation:** A genuine passion for construction, built environment sectors, and topics like sustainable practices and project management is essential.

**Preparatory courses:** Completing Skills for Work programmes, level 5 NPAs, or National 5 courses in Mathematics, Physics, Engineering Science, or Graphic Communications lays a solid foundation. The level 5 NPA in Built Environment is particularly advantageous.

A diagram detailing possible entry to this course can be found in Appendix 1.

## **Employment opportunities**

Learners who achieve the NPA Built Environment within a Global Infrastructure qualification may find diverse employment opportunities across various sectors within the construction and infrastructure industries. This qualification may provide learners with essential skills and knowledge for high-demand roles in construction management, civil engineering, architectural technology, and environmental sustainability.

In construction management, successful learners can pursue careers such as site managers or project supervisors, overseeing construction projects and ensuring they meet safety and budgetary requirements. In civil engineering, roles such as civil engineer or structural engineer involve designing and maintaining infrastructure like roads and bridges. The technical knowledge gained through the qualification is critical for these positions.

Architectural technology offers careers such as architectural technologists or CAD technicians, focusing on creating detailed construction project plans using digital tools. In environmental and sustainability roles, successful learners can become environmental engineers or sustainability consultants, implementing eco-friendly practices and conducting impact assessments.

The qualification may open doors in building services engineering, with positions like Heating Ventilation and Air Conditioning (HVAC) engineers, who design and manage energy-efficient building systems. Additionally, roles in surveying and cost management, such as quantity surveyors, involve estimating project costs and managing budgets.

The construction industry in the UK, as reported by the Construction Skills Network (CSN) by the Construction Industry Training Board (CITB), is expected to need an additional 251,500 workers by 2028, including 26,100 in Scotland alone. This highlights significant employment opportunities for successful learners, especially as the industry shifts towards sustainable and less carbon-intensive construction practices.

Overall, the NPA Built Environment within a Global Infrastructure qualification prepares learners for a variety of roles, ensuring they can contribute to the industry's future while supporting Scotland's sustainability goals.



## 2. Qualification structure

This group award is made up of 6 SQA unit credits. It comprises 38 SCQF credit points of which 8 are at SCQF level 7 in the mandatory section. A mapping of Core Skills development opportunities is available in section 5.3. There is no graded unit in this framework. However, as a fundamental part of the group award each learner will complete either the Built Environment Project or the Civil Engineering Project which will embrace content from several other constituent units. This will offer learners the opportunity to produce a coherent, coordinated response to the case study/project.

### 2.1 Structure

#### Mandatory units:

Learners must complete **all** units from this group.

4 code	2 code	Unit title	SQA credit	SCQF credit points	SCQF level
H66C	46	Sustainability in the Construction Industry	1	6	6
H65W	46	Construction Project Management: An Introduction	1	6	6
DW4D	34	Construction Technical Communication Skills	1	8	7

#### Optional Mandatory units:

Learners must complete **one** unit from this group.

4 code	2 code	Unit title	SQA credit	SCQF credit points	SCQF level
H65S	46	Built Environment Project	1	6	6
F3JH	12	Civil Engineering Project	1	6	6

**Optional units:**

Learners must complete **two** units from this group.

<b>4 code</b>	<b>2 code</b>	<b>Unit title</b>	<b>SQA credit</b>	<b>SCQF credit points</b>	<b>SCQF level</b>
H65V	46	Computer Aided Drafting: An Introduction	1	6	6
H66G	45	Construction Calculations	1	6	5
F3JM	12	Construction Site Surveying: An Introduction	1	6	6
H66F	46	Environmental Building Science: An Introduction	1	6	6
H669	46	Health and Safety in the Construction Industry	1	6	6
H70S	46	Mathematics for Construction Technicians	1	6	6
F3HV	11	Mathematics: Craft 1	1	6	5
H66A	46	Modern Methods of Construction: An Introduction	1	6	6
H66B	46	Structural Concepts: An Introduction	1	6	6
H66D	46	Sustainable Design for Architecture	1	6	6
HF88	46	Work Placement	1	6	6

### **3. Aims of the qualification**

Overall, the NPA Built Environment within a Global Infrastructure qualification aims to produce learners who are not only technically proficient but also capable of contributing to the sustainability and innovation of the construction industry. By integrating practical skills with theoretical knowledge, this qualification prepares learners for progression towards employment or further education in specialised fields, ensuring they can meet the evolving demands of the industry.

This course focuses on two clear pathways for learners, one working towards the Built Environment project, the other working towards the Civil Engineering project. There are mandatory and optional units that overlap both areas. This award has been developed to allow learners to develop knowledge of the integral connections between global infrastructure and the built environment. With the expansion in the construction industry forecasted across Scotland this course allows centres to develop knowledge and understanding of the construction industry locally or alternatively focus on construction projects in other areas. Centres can use the experience of the delivering staff to focus on a combination of units suited for the staff member and the learners.

Built environment projects rely on Global Infrastructure. The Civil Engineering projects allows an opportunity for learners to explore different construction projects. Following this pathway, units can be selected to allow learners to see how Civil Engineering projects that are part of Global infrastructure support built environment projects. Of the many optional units, there is potential to focus on specific infrastructure projects relevant to a local context of the centre.

The Built Environment pathway allows learners to focus on the end point of Global Infrastructure projects. The many optional units allow learners to develop knowledge of specific areas within the built environment or alternatively they can look at how Global infrastructure can connect to a built environment project to supply things like utilities.

This course aims to prepare successful learners to have a strong foundational knowledge of the relationship and importance of Global Infrastructure and the Built Environment for those who will go into further study or a career in the construction industry, or so they have a wider understanding of the industry to support in their future studies or working careers.

### **3.1 General aims of the qualification**

Learners completing this qualification will develop a broad range of knowledge and skills that are essential for success in the construction sectors. These include:

1. Course content that is contemporary to the current construction industry.
2. Developing skills in computer aided design.
3. Developing critical thinking skills.
4. Developing collaboration and team working skills.
5. Developing communication skills.
6. Developing employment skills.
7. Understanding sustainability in construction.
8. Stimulating interest in Science, Technology, Engineering and Mathematics (STEM) among learners.
9. Encouraging learners to consider careers in the construction industry.
10. Providing a stimulating and enjoyable learning experience.

### **3.2 Specific aims of the qualification**

1. Interpret written and graphical information from a given document.
2. Use CAD software to produce graphical information.
3. Apply theoretical knowledge to the planning of a building design project.
4. Calculate and apply complex numerical data.
5. Explain the basic principles of sustainability in relation to the built environment and global infrastructure.

## **4. Recommended entry to the qualification**

Entry to this qualification is at the discretion of the centre. The following information on prior knowledge, skills, experience or qualifications that provide suitable preparation for this qualification has been provided by the Qualification Design Team (QDT) as guidance only.

Learners would benefit from having attained the skills, knowledge and understanding required by one or more of the following or equivalent qualifications and/or experience:

### **Educational background**

Learners are typically expected to have completed SCQF level 5 qualifications with satisfactory performance in relevant subjects such as Mathematics, Physics, Engineering Science, or Graphic Communications. A minimum of National 5 (or equivalent) in these subjects is often preferred.

### **Relevant experience**

While prior work experience in the construction or engineering sectors is not mandatory, it can be beneficial. Learners with experience in roles related to construction, technical drawing, project management, or environmental science may find the course content more relatable and easier to understand.

### **Basic skills and competencies**

Strong foundational skills in mathematics and technical drawing are advantageous. These skills will help learners grasp concepts related to construction calculations, measurements, and design technologies.

Basic computer literacy is important as the course involves the use of digital tools and software for tasks such as computer-aided drafting (CAD).

## **Interest and motivation**

A keen interest in the construction and built environment sectors is essential. Learners should be motivated to explore and understand modern construction techniques, sustainable practices, and project management principles.

## **Preparatory courses**

Pre-courses such as Skills for Work programmes, level 5 NPAs, and National 5 (Nat 5) courses in relevant subjects will be particularly beneficial. These preparatory programs help build a strong foundation and equip learners with the necessary skills and knowledge to succeed in the qualification. Specifically, having completed courses in National 5 Mathematics, Physics, Engineering Science, or Graphic Communications will provide a significant advantage.

The level 5 NPA in Built Environment is an excellent precursor to this course, offering foundational knowledge and skills that directly align with the advanced topics covered in the NPA Built Environment within a Global Infrastructure.

### **4.1 Core Skills entry profile**

The Core Skill entry profile provides a summary of the associated assessment activities that exemplify why a particular level has been recommended for this qualification. The information would be used to identify if additional learning support needs to be put in place for learners whose Core Skills profile is below the recommended entry level or whether learners should be encouraged to do an alternative level or learning programme.

The NPA Built Environment within a Global Infrastructure level 6 encompasses practical skills in construction, communications, sustainability, and project management. Assessment activities include design solutions, site surveys, report writing, evaluations of sustainable practices, and project scheduling. These activities align with the five Core Skills: Communication, Numeracy, Information and Communication Technology (ICT), Problem Solving, and Working with Others. Learners need these skills as preparation for beginning the qualification, to have a

reasonable chance of completing it, and to be ready for the broad range of activities required. The level stated reflects the qualification's main focus, likely requiring a certain level of ability in one or two of the Core Skills. Learners will naturally use and develop aspects of all five Core Skills as they progress through the units, with teaching and learning approaches to be mapped in the next section.

<b>Core Skill</b>	<b>Recommended SCQF entry profile</b>	<b>Associated assessment activities</b>
Communication	5	<ul style="list-style-type: none"> <li>• Summarising and evaluating written information on complex vocational issues</li> <li>• Producing written reports and technical documents</li> <li>• Contributing to formal oral interactions and presentations</li> </ul>
Numeracy	5	<ul style="list-style-type: none"> <li>• Analysing project schedules and timelines</li> </ul>
Information and Communication Technology (ICT)	5	<ul style="list-style-type: none"> <li>• Utilising software for design solutions and construction planning</li> <li>• Analysing data from renewable technologies and sustainability assessments</li> <li>• Preparing management reports using digital tools</li> </ul>
Problem Solving	5	<ul style="list-style-type: none"> <li>• Producing detailed design solutions for construction projects</li> <li>• Investigating the impact of construction on the environment and exploring sustainable practices</li> <li>• Evaluating and addressing issues in project scheduling and site management</li> </ul>

<b>Core Skill</b>	<b>Recommended SCQF entry profile</b>	<b>Associated assessment activities</b>
Working with Others	5	<ul style="list-style-type: none"> <li>• Collaborating on site surveys and construction projects</li> <li>• Conducting site meetings and team discussions</li> <li>• Preparing and presenting management reports with input from multiple team members</li> </ul>



## **5. Additional benefits of the qualification in meeting employer needs**

This qualification was designed to meet a specific purpose and what follows are details on how that purpose has been met through mapping of the units to the aims of the qualification. Through meeting the aims, additional value has been achieved by linking the unit standards with those defined in national occupational standards and/or trade/professional body requirements. In addition, significant opportunities exist for learners to develop the more generic skills, known as Core Skills through doing this qualification.

The NPA Built Environment within a Global Infrastructure prepares learners to have a sound knowledge which may align with graduate apprentice programmes within the construction industry.

## 5.1 Mapping of qualification aims to units

**Note:** For details of the aims, see section [3.1 General aims of the qualification](#) and section [3.2 Specific aims of the qualification](#).

Unit code	Unit title	General aims	Specific aims
H66C 46	Sustainability in the Construction Industry	1, 3, 6, 7, 8, 9, 10	1, 5
H65W 46	Construction Project Management: An Introduction	1, 3, 4, 5, 6, 8, 9, 10	1
DW4D 34	Construction Technical Communication Skills	1, 2, 3, 4, 5, 6, 8, 9, 10	1, 2, 4
H65S 46	Built Environment Project	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	1, 2, 3, 4, 5
F3JH 12	Civil Engineering Project	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	1, 2, 3, 4, 5
H65V 46	Computer Aided Drafting: An Introduction	1, 2, 3, 6, 8, 9, 10	1, 2, 4
H66G 45	Construction Calculations	1, 3, 6, 7, 8, 9, 10	1, 4
F3JM 12	Construction Site Surveying: An Introduction	1, 2, 3, 4, 5, 6, 8, 9, 10	1, 2, 4
H66F 46	Environmental Building Science: An Introduction	1, 3, 4, 5, 6, 7, 8, 9, 10	1, 4, 5
H669 46	Health and Safety in the Construction Industry	1, 3, 4, 5, 6, 8, 9, 10	1, 4, 5
H70S 46	Mathematics for Construction Technicians	1, 3, 6, 8, 9, 10	1, 4
F3HV 11	Mathematics: Craft 1	1, 3, 6, 8, 9, 10	1, 4
H66A 46	Modern Methods of Construction: An Introduction	1, 3, 6, 8, 9, 10	1, 5
H66B 46	Structural Concepts: An Introduction	1, 2, 3, 6, 8, 9, 10	1, 4, 5
H66D 46	Sustainable Design for Architecture	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	1, 5
HF88 46	Work Placement	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	1, 2, 4, 5

## **5.2 Mapping of National Occupational Standards (NOS) and/or trade body standards**

The units have been designed at an introductory SCQF level 6 to underpin the knowledge and skills required within the Construction and the Built Environment Education Standards for 14 to 19 year olds. Learners are in no way expected to fully meet all of the criteria in the standards, but they will be introduced to key aspects to ensure they develop the general skills, technical knowledge and understanding and employability skills needed within the sector.

### 5.3 Mapping of Core Skills development opportunities across the qualifications

**Core Skill Communication components:** Written (Reading), Written (Writing), Oral

Unit code	Unit title	Communication components
H66C 46	Sustainability in the Construction Industry	Written (Reading) — Signposted Written (Writing) — Signposted
H65W 46	Construction Project Management: An Introduction	Written (Reading) — Signposted Written (Writing) — Signposted Oral — Signposted
DW4D 34	Construction Technical Communication Skills	Written (Reading) — Signposted Written (Writing) — Signposted Oral — Signposted
H65S 46	Built Environment Project	Written (Reading) — Signposted Written (Writing) — Signposted Oral — Signposted
F3JH 12	Civil Engineering Project	Written (Reading) — Signposted Written (Writing) — Signposted Oral — Signposted
H65V 46	Computer Aided Drafting: An Introduction	Written (Reading) — Signposted Written (Writing) — Signposted
H66G 45	Construction Calculations	Written (Reading) — Signposted Written (Writing) — Signposted

<b>Unit code</b>	<b>Unit title</b>	<b>Communication components</b>
F3JM 12	Construction Site Surveying: An Introduction	Written (Reading) — Signposted Written (Writing) — Signposted
H66F 46	Environmental Building Science: An Introduction	Written (Reading) — Signposted Written (Writing) — Signposted
H669 46	Health and Safety in the Construction Industry	Written (Reading) — Signposted Written (Writing) — Signposted
H70S 46	Mathematics for Construction Technicians	Written (Reading) — Signposted Written (Writing) — Signposted
F3HV 11	Mathematics: Craft 1	Written (Reading) — Signposted Written (Writing) — Signposted
H66A 46	Modern Methods of Construction: An Introduction	Written (Reading) — Signposted Written (Writing) — Signposted
H66B 46	Structural Concepts: An Introduction	Written (Reading) — Signposted Written (Writing) — Signposted
H66D 46	Sustainable Design for Architecture	Written (Reading) — Signposted Written (Writing) — Signposted
HF88 46	Work Placement	Written (Reading) — Signposted Written (Writing) — Signposted Oral — Signposted

**Core Skill Numeracy components:** Using Number, Using Graphical Information

Unit code	Unit title	Numeracy components
H65W 46	Construction Project Management: An Introduction	Using Number — Signposted Using Graphical Information — Signposted
DW4D 34	Construction Technical Communication Skills	Using Number — Signposted Using Graphical Information — Signposted
H65S 46	Built Environment Project	Using Number — Signposted Using Graphical Information — Signposted
F3JH 12	Civil Engineering Project	Using Number — Signposted Using Graphical Information — Signposted
H65V 46	Computer Aided Drafting: An Introduction	Using Number — Signposted Using Graphical Information — Signposted
H66G 45	Construction Calculations	Using Number — Embedded (SCQF level 5) Using Graphical Information — Embedded (SCQF level 5)
F3JM 12	Construction Site Surveying: An Introduction	Using Number — Embedded Using Graphical Information — Embedded
H66F 46	Environmental Building Science: An Introduction	Using Number — Embedded (SCQF level 5) Using Graphical Information — Signposted
H669 46	Health and Safety in the Construction Industry	Using Number — Signposted Using Graphical Information — Signposted

<b>Unit code</b>	<b>Unit title</b>	<b>Numeracy components</b>
H70S 46	Mathematics for Construction Technicians	Using Number — Embedded (SCQF level 6) Using Graphical Information — Signposted
F3HV 11	Mathematics: Craft 1	Using Number — Embedded (SCQF level 5) Using Graphical Information — Signposted
H66A 46	Modern Methods of Construction: An Introduction	Using Number — Signposted Using Graphical Information — Signposted
H66B 46	Structural Concepts: An Introduction	Using Number — Embedded (SCQF level 5) Using Graphical Information — Signposted
H66D 46	Sustainable Design for Architecture	Using Number — Signposted Using Graphical Information — Signposted
HF88 46	Work Placement	Using Number — Signposted Using Graphical Information — Signposted

**Core Skill Information and Communication Technology (ICT) components:**

Accessing Information, Providing/Creating Information

<b>Unit code</b>	<b>Unit title</b>	<b>Information and Communication Technology (ICT) components</b>
H66C 46	Sustainability in the Construction Industry	Accessing Information — Signposted
H65W 46	Construction Project Management: An Introduction	Accessing Information — Signposted Providing/Creating Information — Signposted
DW4D 34	Construction Technical Communication Skills	Accessing Information — Signposted Providing/Creating Information — Signposted
H65S 46	Built Environment Project	Accessing Information — Signposted Providing/Creating Information — Signposted
F3JH 12	Civil Engineering Project	Accessing Information — Signposted Providing/Creating Information — Signposted
H65V 46	Computer Aided Drafting: An Introduction	Accessing Information — Signposted Providing/Creating Information — Embedded (SCQF level 6)
H66G 45	Construction Calculations	Accessing Information — Signposted
F3JM 12	Construction Site Surveying: An Introduction	Accessing Information — Signposted
H66F 46	Environmental Building Science: An Introduction	Accessing Information — Signposted
H669 46	Health and Safety in the Construction Industry	Accessing Information — Signposted
H70S 46	Mathematics for Construction Technicians	Accessing Information — Signposted
F3HV 11	Mathematics: Craft 1	Accessing Information — Signposted



<b>Unit code</b>	<b>Unit title</b>	<b>Information and Communication Technology (ICT) components</b>
H66A 46	Modern Methods of Construction: An Introduction	Accessing Information — Signposted
H66B 46	Structural Concepts: An Introduction	Accessing Information — Signposted
H66D 46	Sustainable Design for Architecture	Accessing Information — Signposted
HF88 46	Work Placement	Accessing Information — Signposted

**Core Skill Problem Solving components:** Critical Thinking, Planning and Organising, Reviewing and Evaluating

Unit code	Unit title	Problem Solving components
H66C 46	Sustainability in the Construction Industry	Critical Thinking — Signposted Reviewing and Evaluating — Signposted
H65W 46	Construction Project Management: An Introduction	Critical Thinking — Signposted Planning and Organising — Signposted Reviewing and Evaluating — Signposted
DW4D 34	Construction Technical Communication Skills	Critical Thinking — Signposted Planning and Organising — Signposted Reviewing and Evaluating — Signposted
H65S 46	Built Environment Project	Critical Thinking — Embedded (SCQF level 6) Planning and Organising — Embedded (SCQF level 6) Reviewing and Evaluating — Embedded (SCQF level 6)
F3JH 12	Civil Engineering Project	Critical Thinking — Signposted Planning and Organising — Signposted Reviewing and Evaluating — Signposted
H65V 46	Computer Aided Drafting: An Introduction	Critical Thinking — Embedded (SCQF level 4)
H66G 45	Construction Calculations	Critical Thinking — Signposted

<b>Unit code</b>	<b>Unit title</b>	<b>Problem Solving components</b>
F3JM 12	Construction Site Surveying: An Introduction	Critical Thinking — Signposted Planning and Organising — Signposted Reviewing and Evaluating — Signposted
H66F 46	Environmental Building Science: An Introduction	Critical Thinking — Embedded (SCQF level 5) Reviewing and Evaluating — Signposted
H669 46	Health and Safety in the Construction Industry	Critical Thinking — Signposted Planning and Organising — Signposted Reviewing and Evaluating — Signposted
H70S 46	Mathematics for Construction Technicians	Critical Thinking — Embedded (SCQF level 5)
H66A 46	Modern Methods of Construction: An Introduction	Critical Thinking — Signposted Planning and Organising — Signposted Reviewing and Evaluating — Signposted
H66B 46	Structural Concepts: An Introduction	Critical Thinking — Embedded (SCQF level 5) Reviewing and Evaluating — Signposted
H66D 46	Sustainable Design for Architecture	Critical Thinking — Signposted Planning and Organising — Signposted Reviewing and Evaluating — Signposted
HF88 46	Work Placement	Critical Thinking — Embedded (SCQF level 6) Planning and Organising — Embedded (SCQF level 6) Reviewing and Evaluating — Embedded (SCQF level 6)

**Core Skill Working with Others components:** Working Co-operatively with Others, Reviewing Co-operative Contribution

Unit code	Unit title	Working with Others components
H66C 46	Sustainability in the Construction Industry	Working Co-operatively with Others — Signposted
H65W 46	Construction Project Management: An Introduction	Working Co-operatively with Others — Signposted
H65S 46	Built Environment Project	Working Co-operatively with Others — Signposted
F3JH 12	Civil Engineering Project	Working Co-operatively with Others — Signposted
H669 46	Health and Safety in the Construction Industry	Working Co-operatively with Others — Signposted
HF88 46	Work Placement	Working Co-operatively with Others — Embedded (SCQF level 6) Reviewing Co-operative Contribution — Embedded (SCQF level 6)

## 5.4 Assessment strategy for the qualifications

Unit code and title	Assessment: Outcomes 1 to 3	Assessment: Outcome 4	Assessment: Outcome 5
H66C 46 Sustainability in the Construction Industry (SCQF level 6)	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Evidence should be generated through assessment undertaken in controlled, supervised open-book conditions.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this open-book assessment.</p>	Not applicable.	Not applicable.

<b>Unit code and title</b>	<b>Assessment: Outcomes 1 to 4</b>	<b>Assessment: Outcome 5</b>
H65W 46 Construction Project Management: An Introduction (SCQF level 6)	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Evidence should be generated through assessment undertaken in controlled, supervised conditions.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this assessment.</p>	Not applicable.

Unit code and title	Assessment: Outcomes 1 to 4	Assessment: Outcome 5
DW4D 34 Construction Technical Communication Skills (SCQF level 7)	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Evidence should be generated through assessment undertaken in controlled, supervised conditions.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this assessment.</p>	Not applicable.
H65S 46 Built Environment Project (SCQF level 6)	<p>All outcomes should be assessed in a single, integrated case study. A significant part of the project can be without close supervision although the assessor may provide guidance and support. While time constraints are relaxed, project work must be carried out within an agreed, set time frame, with pre-determined sanctions in operation when deadlines are not met.</p>	Not applicable.

Unit code and title	Assessment: Outcomes 1 to 3	Assessment: Outcome 4	Assessment: Outcome 5
<p>F3JH 12</p> <p>Civil Engineering Project (SCQF level 6)</p>	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Evidence should be generated through assessment undertaken in controlled, supervised conditions.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this assessment.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>



Unit code and title	Assessment: Outcomes 1 and 2	Assessment: Outcomes 3 to 5
H65V 46 Computer Aided Drafting: An Introduction (SCQF level 6)	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Evidence should be generated through assessment undertaken in controlled, supervised conditions.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this assessment.</p>	Not applicable.

Unit code and title	Assessment: Outcomes 1 to 4	Assessment: Outcome 5
H66G 45 Construction Calculations (SCQF level 5)	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Evidence should be generated through assessment undertaken in controlled, supervised conditions.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this assessment.</p>	Not applicable.

Unit code and title	Assessment: Outcomes 1 to 3	Assessment: Outcome 4	Assessment: Outcome 5
<p>F3JM 12</p> <p>Construction Site Surveying: An Introduction (SCQF level 6)</p>	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Evidence should be generated through assessment undertaken in controlled, supervised conditions.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this assessment.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

Unit code and title	Assessment: Outcomes 1 to 3	Assessment: Outcome 4	Assessment: Outcome 5
<p>H66F 46</p> <p>Environmental Building Science: An Introduction (SCQF level 6)</p>	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Evidence should be generated through assessment undertaken in controlled, supervised conditions.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this assessment.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

Unit code and title	Assessment: Outcomes 1 to 3	Assessment: Outcome 4	Assessment: Outcome 5
<p>H669 46</p> <p>Health and Safety in the Construction Industry (SCQF level 6)</p>	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Evidence should be generated through assessment undertaken in controlled, supervised conditions.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this assessment.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

Unit code and title	Assessment: Outcomes 1 to 4	Assessment: Outcome 5
H70S 46 Mathematics for Construction Technicians (SCQF level 6)	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Evidence should be generated through assessment undertaken in controlled, supervised conditions.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this assessment.</p>	Not applicable.

Unit code and title	Assessment: Outcomes 1 to 5
F3HV 11 Mathematics: Craft 1 (SCQF level 6)	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Evidence should be generated through assessment undertaken in controlled, supervised conditions.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this assessment.</p>

Unit code and title	Assessment: Outcomes 1 to 3	Assessment: Outcome 4	Assessment: Outcome 5
<p>H66A 46</p> <p>Modern Methods of Construction: An Introduction (SCQF level 6)</p>	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Evidence should be generated through assessment undertaken in controlled, supervised conditions.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this assessment.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>



Unit code and title	Assessment: Outcomes 1 to 3	Assessment: Outcome 4	Assessment: Outcome 5
<p>H66B 46</p> <p>Structural Concepts: An Introduction (SCQF level 6)</p>	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Evidence should be generated through assessment undertaken in controlled, supervised conditions.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this assessment.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

Unit code and title	Assessment: Outcomes 1 to 3	Assessment: Outcome 4	Assessment: Outcome 5
<p>H66D 46</p> <p>Sustainable Design for Architecture (SCQF level 6)</p>	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Evidence should be generated through assessment undertaken in controlled, supervised conditions.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this assessment.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

Unit code and title	Assessment: Outcomes 1 to 4	Assessment: Outcome 5
HF88 46 Work Placement (SCQF level 6)	<p>To demonstrate satisfactory attainment of all outcomes of the unit, learners must produce written and/or recorded oral evidence that covers all outcomes and performance criteria.</p> <p>It is anticipated that the evidence will be produced as one portfolio of work (digitally or otherwise).</p> <p>Assignments should be supported by visual material where appropriate.</p> <p>Learners may refer to a range of physical or electronic resources such as textbooks, online libraries/tutorial videos to assist with completion of this assessment.</p>	Not applicable.

## **6. Guidance on approaches to delivery and assessment**

### **Aims**

The overall aim of this award is to inspire and enthuse learners to consider a career in the Built Environment within a Global Infrastructure through project-based learning. The project design and content reflects a real-life design brief. The learner will consider design concepts, time management and planning and presentation requirements whilst developing the general skills, technical knowledge and understanding and employability skills needed within the sector. Learners will produce a project-based portfolio of work using clearly defined performance criteria.

### **Delivery**

This National Progression Award is primarily, but not exclusively, designed to be delivered in a school/college environment. Many of the units allow for centres to work with industry partners to contextualise and show relevance of content.

The award could be embedded into a S5–S6 school curriculum or offered in college as; in-fill, part-time, block-release, day-release or part of a full-time SCQF level 6 course.

### **Combined study**

Delivery is designed in such a way that combined study may enable learners to complete the award within a shorter time period. Should a centre wish to take an integrated approach and encompass further optional units, the framework design allows for this.

## **Context**

This qualification is intended primarily for learners in the 15 to 19 age group but may also be used by other learners who wish to gain an introductory understanding of a vocational area. This NPA provides an opportunity to progress to study at SCQF level 7. It is envisaged that this award will be delivered using a contextualised approach, where many areas of the curriculum are connected and integrated within a context, that is, the project sits at the heart of delivery. This approach enables coursework to be presented as evidence and judged holistically, underpinning the learning outcomes for each unit in the award. Holistic assessment encourages learners to combine elements of their learning from different areas of the award to show their accumulated knowledge and understanding of a topic or subject area.

## **Content**

### **Mandatory units:**

#### **Sustainability in the Construction Industry**

This unit aims to introduce learners to the basic principles of sustainability in relation to the construction, operation and demolition of buildings. The unit is intended to give learners confidence in the qualitative assessment of sustainability in relation to construction, and to develop his or her technical skills to be able to communicate effectively with other members of the construction team.

#### **Construction Project Management: An Introduction**

This unit aims to introduce learners to some of the fundamental aspects of site management by increasing the learner's knowledge and understanding of the skills required by a manager in the modern construction/civil engineering industry. The unit will develop the learners understanding of the management team and the administrative roles and strategies used to organise and manage a construction project.

## **Construction Technical Communication Skills**

This unit is designed to enable learners to effectively communicate in a construction environment using a variety of media. Graphical, Written and Verbal forms of communication are covered ensuring the learner's ability to identify, communication and record information in the most suitable medium.

### **Optional Mandatory units:**

#### **Built Environment Project**

This unit is designed to develop the learner's ability to apply the knowledge and skills gained through study of other NC Built Environment components to solve real or hypothetical building design issues. The gathering, organisation and use of factual and theoretical information should lead to sound conclusions and solutions to design problems.

#### **Civil Engineering Project**

This unit is suitable for learners who have limited knowledge of Civil Engineering who wish to work in the field as technician, technologist or other construction professional. The unit will develop the learner's ability to apply knowledge, skills, effective self-study, research, report writing and presentation gained through study, to the production of a Civil Engineering project.

### **Optional units:**

#### **Computer Aided Drafting: An Introduction**

This unit aims to introduce the learner to the use of Computer Aided Drafting software to produce 2D construction drawings. The unit is intended to develop the learner's ability and confidence in the production and editing of simple construction drawings. It will also develop their graphical presentation skills ensuring they are able to communicate effectively with other members of the construction team.

## **Construction Calculations**

This unit is designed to provide learners with underpinning mathematical skills. Although mathematical skills are assessed, it should be emphasised that they are being used in practical construction applications and contexts. Mathematics is the tool; construction is the context. The learners will learn how to use mathematical concepts and apply them to the topics within the area of the Built Environment such as construction details and land surveying. This unit is suitable for learners who aspire to a career in the construction industry or related fields as a technician or technologist.

## **Construction Site Surveying: An Introduction**

The unit introduces the basic principles of land surveying and the techniques adopted in the preparation of construction site plans. It includes the interpretation of data from site plans developed for individual construction projects and from Ordnance Survey (OS) maps and plans. Learners will carry out a practical survey using basic equipment to gather data that will allow the production of a site plan, contour plan and section.

## **Environmental Building Science: An Introduction**

The purpose of this unit is to prepare learners for careers in the construction industry as technicians, technologists or other related professions in the fields of architecture, surveying, construction management and civil engineering, but not restricted to these fields. The unit introduces the basic principles of heat, sound and light relevant to construction and develops skills in completing calculations in relation to these principles. It includes the understanding of units and quantities in heat, light and sound and their application to basic problem solving. Learners will be introduced to basic problems relating to heat energy and transfer, natural and artificial lighting and sound generation, propagation and attenuation, together with their application in elements building science.

## **Health and Safety in the Construction Industry**

This unit is intended for learners, who are currently working in, or desire to work in, the construction sector and who want to develop knowledge and understanding of health and safety relevant to the construction industry. The aims of the unit are to introduce the learner to safety awareness, hazard identification, safe working practices and occupational health issues associated with work in the construction industry. This unit will also provide the learner with the basic understanding of procedures to be followed in the event of fire or accident in the workplace.

## **Mathematics for Construction Technicians**

The unit is intended for those learners who wish to develop their knowledge and understanding of Mathematics at SCQF level 6 with a view to supporting and underpinning their studies in a civil engineering discipline. The unit is designed to further develop aspects of the learner's skills in numeracy, trigonometry, algebra and vector algebra and to apply these skills in the civil engineering context. The content of each outcome is to be delivered and assessed with specific reference to civil engineering.

## **Mathematics: Craft 1**

This unit is intended primarily for those learners who wish to develop their knowledge and understanding of Mathematics at SCQF level 5 with a view to supporting and underpinning their studies in an engineering discipline. In such cases, delivery of the unit should be set within the context of the award to which it contributes. The unit is designed to develop aspects of the learner's skills in numeracy, geometry, graphical communication, trigonometry and algebra, and to apply these skills in the appropriate engineering context. It is envisaged that the content of each outcome is delivered and assessed with specific reference to the learner's engineering specialism, where appropriate.



## **Modern Methods of Construction: An Introduction**

This unit is suitable for learners who have limited experience of the construction industry and wish to gain knowledge in the field of technician, contracting or design. The unit is designed to provide learners with knowledge of modern methods of construction, and the materials, technologies and methodologies involved. Successful learners will recognise the benefits of efficiency, quality, safety and sustainability arising from the use of modern methods of construction.

## **Structural Concepts: An Introduction**

This unit has been designed to introduce learners to structural concepts as applied to construction, including basic calculations and the identification of related units of measurement. The learners will investigate structural form and load transfer, whilst considering the basic principles of equilibrium, forces, stress and strain. This unit is aimed at school leavers and those currently working in the construction industry or those desiring to work within the construction industry as technicians, technologists or other related professions.

## **Sustainable Design for Architecture**

This unit aims to illustrate to learners how a design brief is developed before analysing the sustainable design of buildings prior to the utilisation of renewable energy technologies. On completion of the unit, learners should be able to interpret a design brief and acknowledge relevant design constraints. Learners will also be able to evaluate and understand the principles of sustainable design through the analysis of case studies and appropriate literature.

## **Work Placement**

The Work Placement Unit at SCQF level 6 is designed to recognise the valuable learning and development which takes place as a result of planning and carrying out a suitable work placement. Learners will have an opportunity to think about their abilities and career aspirations in preparation for their work placement. During the placement they will negotiate tasks, work with others and carry out a vocational learning project. Learners will evaluate their progress on completion of the placement.

**Project-based Portfolio of work with clearly defined performance criteria:** A contextualised approach to assessment, where many areas of the curriculum are connected and integrated within a context. This form of assessment enables coursework to be presented as evidence and judged collectively against holistic assessment performance criteria, underpinning the learning outcomes for each unit in the award and/or knowledge and understanding in a question paper, where utilised.

## **6.1 Sequencing/integration of units**

For learners to have a positive learning experience, it is recommended that the units be delivered as follows:

### **Sustainability in the Construction Industry**

This is an introductory unit which provides learners with a basic knowledge that will underpin many of the other units covered across the course. It would be best delivered in its entirety before delivering the rest of the award.

And

### **Preferred delivery option**

The optional units should be connected and integrated within a context to build towards the selected optional mandatory unit project, with optional units feeding into the project in a holistic delivery pattern.

Or

### **Alternative delivery option**

The optional units delivered in a linear fashion with the mandatory units completed then finally the optional mandatory unit being completed last.

## 6.2 Recognition of prior learning

SQA recognises that learners gain knowledge and skills acquired through formal, non-formal and informal learning contexts.

In some instances, a full group award may be achieved through the recognition of prior learning. However, it is unlikely that a learner would have the appropriate prior learning and experience to meet all the requirements of a full group award.

The recognition of prior learning may **not** be used as a method of assessing in the following types of units and assessments:

- HN Graded Units.
- Course and/or external assessments.
- Other integrative assessment units (which may or not be graded).
- Certain types of assessment instruments where the standard may be compromised by not using the same assessment method outlined in the unit.
- Where there is an existing requirement for a licence to practice.
- Where there are specific health and safety requirements.
- Where there are regulatory, professional or other statutory requirements.
- Where otherwise specified in an assessment strategy.

More information and guidance on the *Recognition of Prior Learning* (RPL) may be found on our website: [SQA Home Page](http://www.sqa.org.uk) (www.sqa.org.uk).

The following sub-sections outline how existing SQA units may contribute to this group award. Additionally, they also outline how this group award may be recognised for professional and articulation purposes.

### 6.2.1 Articulation and/or progression

See progression diagram (Appendix 1).

### **6.2.2 Professional recognition**

There is no professional recognition for this award. However, it is intended that industry would be involved wherever possible to assist/enhance the delivery of the qualification.

## **6.3 Opportunities for e-assessment**

The award can be delivered in a variety of ways, ranging from traditional classroom delivery to online delivery. A wide range of digital resources exist to support teaching and learning, such as YouTube videos that explain various aspects of the course such as Sustainability and Computer Aided Design.

Depending on the assessment approach taken, evidence could be collated into an electronic portfolio and presented in a format agreed between the learner and assessor. It is recommended that a digital portfolio is presented, however this is not mandatory. E-assessment is appropriate for parts/all of this award. E-assessment refers to assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or social software. Centres who wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the evidence requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at [www.sqa.org.uk/e-assessment](http://www.sqa.org.uk/e-assessment).

## **6.4 Support materials**

A list of existing Assessment Support Packs (ASPs) is available to view on SQA's website: [Internal Assessment Support Materials](http://www.sqa.org.uk/internal-assessment-support-materials) ([www.sqa.org.uk/internal-assessment-support-materials](http://www.sqa.org.uk/internal-assessment-support-materials)).

## **6.5 Resource requirements**

Appropriate consideration should be given in relation to health and safety requirements, for example risk assessment. A suitably equipped learning environment with internet access will be required for each learner and a range of physical or electronic resources such as textbooks, online libraries and tutorial videos. In addition, basic 3D modelling software is required. Surveying equipment may be required depending on the units selected.

## 7. General information for centres

### Equality and inclusion

The unit specifications making up this group award have been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners will be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website:

[SQA Assessment Arrangements](http://www.sqa.org.uk/assessmentarrangements) ([www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements)).

### Internal and external verification

All assessments used within these qualifications should be internally verified, using the appropriate policy within the centre and the guidelines set by SQA.

External verification will be carried out by SQA to ensure that internal assessment is within the national guidelines for these qualifications.

Further information on internal and external verification can be found in SQA's Guide to Assessment [Guide to Assessment](#) ([www.sqa.org.uk/files\\_ccc/Guide\\_To\\_Assessment.pdf](http://www.sqa.org.uk/files_ccc/Guide_To_Assessment.pdf))

## 8. Glossary of terms

This award should be delivered with an understanding of the links between the Built Environment and Global Infrastructure. This glossary includes recognised definitions of the terms 'Built Environment' and 'Global Infrastructure' within a Construction context.

**Built Environment** — Human-made surroundings that provide the setting for human activity.

Examples include:

- **Buildings:** Residential, commercial, industrial, and institutional structures.
- **Infrastructure:** Roads, bridges, tunnels, and utilities like water supply and sewage systems.
- **Public spaces:** Parks, plazas, and recreational areas.
- **Transportation systems:** Airports, train stations, and bus terminals.

**Global Infrastructure** — The interconnected systems and facilities that support economic, communication, transportation, and energy distribution.

Examples include:

- **Transportation networks:** Airports, seaports, railways, and highways that facilitate the movement of goods and people across borders.
- **Communication systems:** Internet, satellite networks, and telecommunication services that enable global connectivity.
- **Energy grids:** Power plants, pipelines, and renewable energy sources that supply energy across countries.

**Embedded Core Skills** is where the assessment evidence for the unit also includes full evidence for complete Core Skill or Core Skill components. A learner and/or candidate successfully completing the unit will be automatically certificated for the Core Skill. (This depends on the unit having been successfully audited and validated for Core Skills certification.)

**Finish date:** The end of a group award's lapsing period is known as the finish date. After the finish date, the group award will no longer be live and the following applies:

- Learners and/or candidates may not be entered for the group award.
- the group award will continue to exist only as an archive record on the Awards Processing System (APS).

**Lapsing date:** When a group award is entered into its lapsing period, the following will apply:

- the group award will be deleted from the relevant catalogue.
- the group award specification will remain until the qualification reaches its finish date at which point it will be removed from SQA's website and archived.
- no new centres may be approved to offer the group award.
- centres should only enter learners and/or candidates whom they expect to complete the group award during the defined lapsing period.

**SQA credit value:** The credit value allocated to a unit gives an indication of the contribution the unit makes to an SQA group award. An SQA credit value of 1 given to an SQA unit represents approximately 40 hours of programmed learning, teaching and assessment.

**SCQF:** The Scottish Credit and Qualification Framework (SCQF) provides the national common framework for describing all relevant programmes of learning and qualifications in Scotland. SCQF terminology is used throughout this guide to refer to credits and levels. For further information on the SCQF visit the SCQF website at [Scottish Credit and Qualifications Framework](http://www.scqf.org.uk) ([www.scqf.org.uk](http://www.scqf.org.uk)).



**SCQF credit points:** SCQF credit points provide a means of describing and comparing the amount of learning that is required to complete a qualification at a given level of the Framework. One National Unit credit is equivalent to 6 SCQF credit points. One National Unit credit at Advanced Higher and one Higher National Unit credit (irrespective of level) is equivalent to 8 SCQF credit points.

**SCQF levels:** The level a qualification is assigned within the framework is an indication of how hard it is to achieve. The SCQF covers 12 levels of learning. HNCs and HNDs are available at SCQF levels 7 and 8, respectively. Higher National Units will normally be at levels 6 to 9 and graded units will be at levels 7 and 8. National Qualification Group Awards are available at SCQF levels 2 to 6 and will normally be made up of National Units which are available from SCQF levels 2 to 7.

**Subject unit:** Subject units contain vocational/subject content and are designed to test a specific set of knowledge and skills.

**Signposted Core Skills:** Refers to opportunities to develop Core Skills arise in learning and teaching but are not automatically certificated.

## History of changes

It is anticipated that changes will take place during the life of the qualification and this section will record these changes. This document is the latest version and incorporates the changes summarised below. Centres are advised to check SQA's APS Navigator to confirm they are using the up-to-date qualification structure.

**Please note:** Where a unit is revised by another unit:

- No new centres may be approved to offer the unit which has been revised.
- Centres should only enter learners and /or candidates for the unit which has been revised where they are expected to complete the unit before its finish date.

Version number	Description	Date

## Acknowledgement

SQA acknowledges the valuable contribution that Scotland's colleges have made to the development of this qualification.

Template version: February 2025

## 9. General information for learners

This information will help you decide whether this is the qualification for you by explaining what the qualification is about, what you should know or be able to do before you start, what you will need to do during the qualification and opportunities for further learning and employment.

This National Progression Award (NPA) will introduce you to the Built Environment within a Global Infrastructure through project-based learning whilst developing the general skills, technical knowledge and understanding and employability skills required for success within the construction sector.

The qualification is designed to give you an understanding of the construction industry in terms of work sectors, careers and types of infrastructure and buildings. You will work with some creative ideas associated with the design process in relation to construction proposals.

If you successfully complete this award, you may progress on to further study or seek employment in the construction sector, perhaps as Graduate Apprentice or other relevant professional accreditation.

A design project sits at the heart of the delivery of this award. A contextualised approach will be used, that is, many areas of the curriculum are connected and integrated within a context. The project design and content reflect a real life design brief encouraging you to consider design concepts, planning and presentation requirements.

The award is mainly classroom based with appropriate role-playing and research exercises as well as some computer-based design activities. You will spend the majority of your time in a classroom workshop or design studio environment with some site visits incorporated where appropriate and feasible. This approach is designed to equip you with the knowledge, understanding and skills required by employers in the construction sector.

You will gain the basic knowledge, skills and techniques that are required to use a suitable digital format, create a data rich model to connect technical, pictorial and functional information which relate to elements of vocational specialisms.

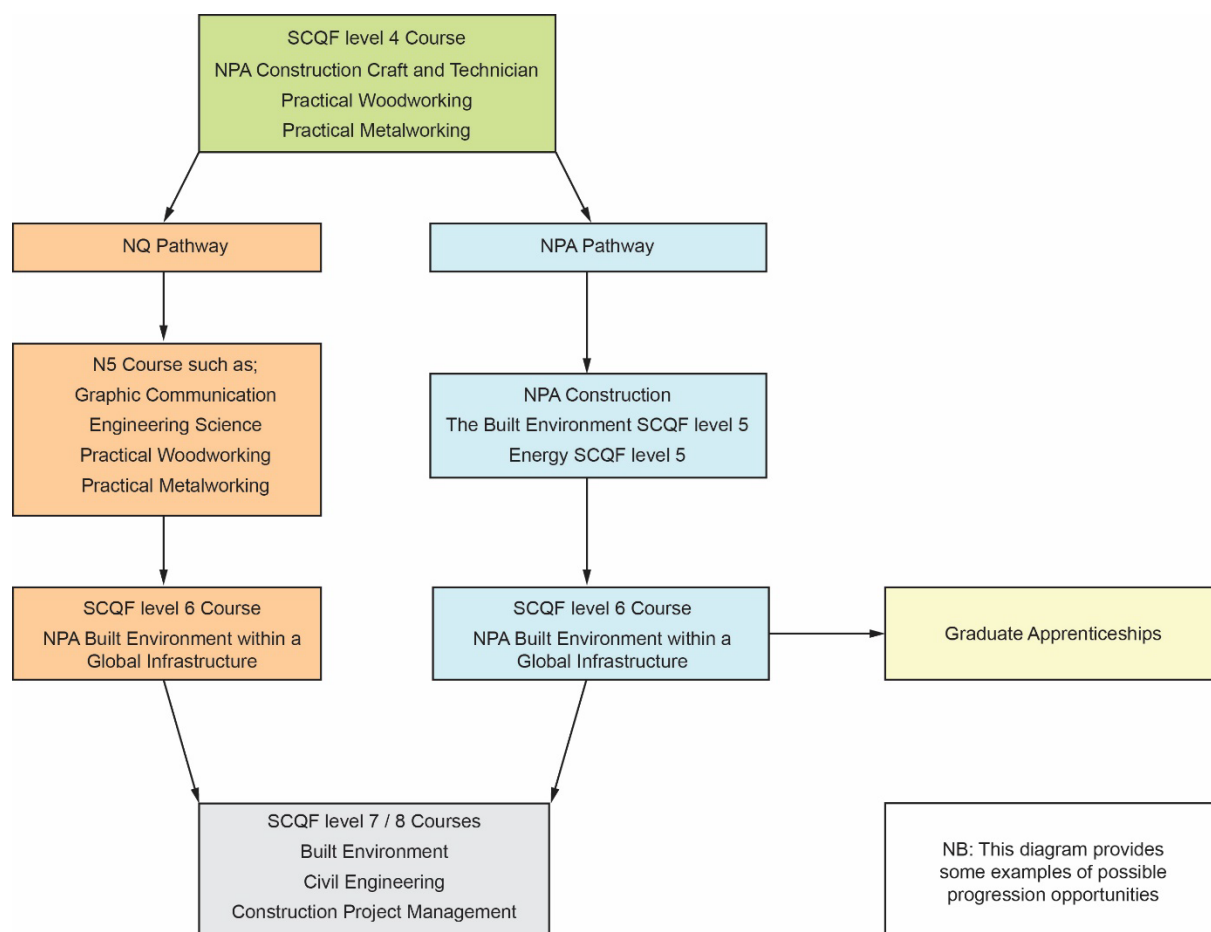
You will have the opportunity to learn about the nature of employability in the construction industry which includes developing appropriate workplace behaviours such as punctuality.

You will develop the Core Skills listed below:

- Communication
- Numeracy
- Problem Solving
- Working with Others
- Information and Communication Technology (ICT)

You will be assessed on the knowledge and skills developed in each unit. There are several possible types of assessment, including multiple-choice questions, however, the main method of assessment recommended for this award is through the project unit by compiling a portfolio of evidence.

## Appendix 1: Progression routes for NPA Built Environment within a Global Infrastructure at SCQF level 6



Start at SCQF level 4 (NPA Construction Craft and Technician, Practical Woodworking or Practical Metalworking), then move to SCQF level 5 either via the N5 (Graphic Communication, Engineering Science, Practical Woodworking or Practical Metalworking) or NPA (The Built Environment SCQF level 5 or Energy SCQF level 5) route. Each route leads to SCQF level 6 course NPA Built Environment within a Global Infrastructure. Then at SCQF levels 7/8 choose a specialism (such as Built Environment, Civil Engineering or Construction Project Management). The NPA route also offers an option for graduate apprenticeships after level 6.

The diagram provides some examples of possible progression opportunities.