



## **Group Award Specification for:**

**National Progression Award (NPA): Building Services Engineering at SCQF level 5**

**Group Award Code: GL6T 45**

**Validation date: June 2016**

**Date of original publication: June 2016**

**Version: 01**

## Contents

1	Introduction .....	1
1.1	Rationale .....	2
2	Qualification structure.....	4
2.1	Structure.....	4
3	Aims of the qualification .....	5
3.1	General aims of the qualification .....	5
3.2	Specific aims of the qualification.....	5
4	Recommended entry to the qualification.....	6
4.1	Core Skills entry profile.....	6
5	Additional benefits of the qualification in meeting employer needs .....	7
5.1	Mapping of qualification aims to Units .....	8
5.2	Mapping of National Occupational Standards (NOS) and/or trade body standards .....	9
5.3	Mapping of Core Skills development opportunities across the qualification .....	10
5.4	Assessment Strategy for the qualification .....	11
6	Guidance on approaches to delivery and assessment.....	11
6.1	Sequencing/integration of Units .....	13
6.3	Opportunities for e-assessment.....	15
6.4	Support materials .....	15
6.5	Resource requirements .....	15
7	General information for centres .....	15
8	Glossary of terms .....	16
9	General information for learners .....	19

# 1 Introduction

This document was previously known as the Arrangements document. 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 HEIs of the aims and purpose of the qualification
- ◆ provide details of the range of learners the qualification is suitable for and progression opportunities

This is the Group Award Specification for the revised National Progression Award: Building Services Engineering at SCQF level 5, which was validated in April 2016. The Building Services Engineering (BSE) Sector comprises the industries of Plumbing, Electrotechnical, Heating and Ventilation and Refrigeration and Air Conditioning. The BSE Sector is represented by the Standards Setting Organisation (SSO) SummitSkills, who work on behalf of employers in the BSE Sector to implement National Occupational Standards (NOS) into national qualification frameworks and the development of modern apprenticeships.

The NPA at SCQF level 5 is designed to equip students with the knowledge; understanding and skills required for success in employment or further study/training within the Scottish BSE sector.

This National Progression Award is suitable for a wide range of candidates including:

- ◆ S5 and S6 candidates.
- ◆ School leavers.
- ◆ Progression candidates (eg Skills for Work).
- ◆ Adults returning to education.
- ◆ Employed candidates who wish to enhance their career prospects.
- ◆ Unemployed candidates who wish to enhance their job prospects.

Candidates who complete the NPA may go on to apply for an Apprenticeship as an Air Conditioning Engineer; Domestic Plumber; Ductwork Installer; Gas Fitter; Heating Installer; Industrial And Commercial Plumber; Installation Electrician; Maintenance Electrician; Refrigeration Engineer; Service And Maintenance Engineer. Candidates may also go on to higher levels of education, eg the NC or HNC.

This award, and its place in the developing BSE suite of awards, is recognised by the relevant trade associations who represent the interests of Employers in the BSE Sector in Scotland:

- ◆ SNIPEF
- ◆ SELECT
- ◆ BESA

## 1.1 Rationale

The BSE Sector is acutely aware of the demographic issues facing Scotland whereby the working population is ageing and there are (relatively) too few young people to replace them.

It is recognised that many youngsters miss the opportunity to enter the BSE Sector because they simply don't know about it at the crucial decision-making points of their lives. All young people will have an awareness of the Construction Sector and many will consider it as a viable career option. However, evidence suggests that young people are not aware of the BSE Sector or the many opportunities it affords for development and progression to the professional levels.

In order to address this situation a SfW qualification had been developed to make the 14–16 age group aware of the BSE Sector and to allow them the opportunity to develop some basic knowledge and skills relevant to the industries and is based on National Occupational Standards (NOS). Environmental aspects are covered at the appropriate level and are likely to be attractive to the target population.

The NPA was developed to provide a bridge between the school age group (catered for by the new Skills for Work qualification) and the full apprenticeship and is based on National Occupational Standards (NOS). It is only the full apprenticeship which confers full industrial competence on the individual. Environmental aspects, and associated technology, are covered at the appropriate level and are likely to be attractive to the target population and potential employers.

These awards are not designed to train people to full industrial competence. The SfW and the NPA are aimed at those who do not necessarily have any prior experience or knowledge of the BSE Sector and are therefore classed as 'new entrants'. Learners can then build on the skills, knowledge and employability skills gained when working towards an SVQ (which does confer full industrial competence), should they wish to do so.

More generally, the BSE Sector will make a crucial contribution to the achievement of the Scottish Government 2020 Energy targets and clearly this can only happen through appropriately qualified people. Areas such as microgeneration and renewables are within the BSE footprint. It is anticipated that these areas in particular will raise the BSE Sector profile over the next 10–15 years and that those working in the sector must be appropriately qualified and skilled.

With anticipated changes to the National Progression Award in Construction having already gone through the transition of a validation process in January 2016, the majority of SQA Approved Centres delivering this Group Award were expecting Plumbing and Electrotechnical Units to be prominent. SNIPEF (Scotland and Northern Ireland Plumbing Employers Federation) and SECTT (Scottish Electrical Charitable Training Trust), the Joint Awarding Bodies with SQA for Vocational Qualification, formally requested the removal of Plumbing and Electrotechnical Units from the National Progression Award in Construction after consultation with employer stakeholders and members. SQA received documentation to effectuate this process and both SNIPEF and SECTT recognise the National Progression Award (NPA) in Building Services Engineering at SCQF level 5 to be the preferred pathway for those seeking to gain employment in the Building Services Engineering Sector.

Ultimately, this could have created negative delivery issues for SQA Approved Centres who had historically taught Plumbing and Electrotechnical Units through a combined delivery of trade disciplines aligned with the National Progression Award in Construction.

In order to ensure that SQA Approved Centres can deliver these subjects as part of their pre-employment programmes it was necessary to amend the current structure of the National Progression Award (NPA) in Building Services Engineering at SCQF level 5.

Feedback from SQA representatives and stakeholders suggested that obstacles were present with the existing Practical Units, FT80 11 and FT81 11, to several SQA centres who were not as equipped as the larger Colleges to deliver the full portfolio of skills required. Heating and Ventilation and Refrigeration and Air Conditioning SQA centres are minimal in number and it was logical that any proposed changes to a revised National Progression Award in Building Services Engineering at SCQF level 5 were fit for purpose for all centres. The revised National Progression Award in Building Services Engineering at SCQF level 5 can be achieved through the Mandatory route within a notional design length of 300 hours at 7.5 National Unit credits (45 SCQF credit points at SCQF level 5).

The specific aims of the proposed qualification would still focus on a balanced delivery and assessment of trade disciplines on the BSE Sector, with those centres who could not wholly provide a Realistic Working Environment given the opportunity to undertake theory Units in Heating and Ventilation and/or Refrigeration and Air Conditioning — Mandatory Optional Routes. Furthermore, a Health and Safety Unit has been developed because of the importance of the subject in relation to SVQ L3 Modern Apprenticeships in the BSE Sector. This ensures learners grasp a level of knowledge in this area, fundamentally enhancing personal progression. Modern Apprentices in the BSE Sector are subject to legislation regarding Health and Safety within their technical competencies. Candidates have to be prepared for Construction Safety where a license is required for an operative to work on a Construction Development. All trades in the BSE Sector would be sub-contractors on Construction Developments and candidates would require proving competency for Health and Safety prior to commencing work. This new Unit would focus on safe systems of work and risk assessment where evidence would be attributed to all Practical Units — FT7X 11, FT7Y 11, FT80 11 and FT81 11.

Mandatory Optional Units in Heating and Ventilation and Refrigeration and Air Conditioning have been produced where candidates can select existing Practical Units or new Theory Units where centres are limited on practical delivery within these two subject areas. Theoretical concepts of both technical areas are covered in part in specific and generic environmental Units of all SVQ level 3 BSE qualifications.

## 2 Qualification structure

The Group Award is made up of 9.5 SQA Unit credits. It comprises 57 SCQF credit points at SCQF level 5 of which 33 are mandatory and 24 are optional, with learners requiring a minimum of 12 points from two technical areas.

### 2.1 Structure

To achieve the Group Award learners require 7.5 Unit credits at SCQF level 5 (45 SCQF credit points).

SQA Code	Unit	Status	SCQF level	Credits	SCQF points
HF2E 45	Building Services Engineering: Health and Safety	M	5	0.5	3
FT7X 11	Building Services Engineering: Basic Electrical Installation Operations	M	5	1	6
FT7Y 11	Building Services Engineering: Basic Plumbing Operations	M	5	1	6
FT82 11	Building Services Engineering: Energy and the Environment	M	5	1	6
FT83 11	Building Services Engineering: Systems, Roles, Responsibilities and Procedures	M	5	1	6
FT84 11	Building Services Engineering: Science	M	5	1	6
<b>Mandatory Optional Route — a minimum of one Unit to be selected</b>					
FT80 11	Building Services Engineering: Basic Heating and Ventilation Operations	O	5	1	6
HF2F 45	Building Services Engineering: Basic Heating and Ventilation Principles	O	5	1	6
<b>Mandatory Optional Route — a minimum of one Unit to be selected</b>					
FT81 11	Building Services Engineering: Basic Refrigeration and Air Conditioning Operations	O	5	1	6
HF2D 45	Building Services Engineering: Basic Refrigeration and Air Conditioning Principles	O	5	1	6

## 3 Aims of the qualification

### Principal Aims

The principal aim of the National Progression Award in Building Services Engineering is to provide opportunities for learners to experience a variety of trade disciplines and occupations within the BSE Sector, while still enjoying the benefits of close contact with their training/education provider.

This Group Award is a vocational qualification which provides practical opportunities for developing real skills that are valid and relevant in the BSE Sector. The National Progression Award in Building Services Engineering is flexible and is designed to offer learners experience of a wide range of skills and practices across the Group Award Mandatory and Optional Units. This will help learners to make an informed choice about the most appropriate career option for them in the BSE Sector in the following trade disciplines:

- ◆ Electrotechnical
- ◆ Plumbing
- ◆ Heating and Ventilation
- ◆ Refrigeration and Air Conditioning

### 3.1 General aims of the qualification

This Group Award aims to offer learners the opportunity to improve their employability prospects within the BSE Sector by developing learners’:

- 1 Practical knowledge and skills.
- 2 Ability to solve problems.
- 3 Transferable skills.
- 4 Ability to be flexible and work cooperatively with others.
- 5 Ability to take responsibility for their own learning.
- 6 Awareness of sustainability and environmental measures in BSE.
- 7 Employment and behavioural skills.
- 8 Understanding of Health and Safety in the BSE Sector.
- 9 Planning and organisational skills.
- 10 Oral, written and communication skills.
- 11 Numerical and graphical skills.
- 12 ICT skills.
- 13 Flexibility, knowledge, skills and motivation as a basis for progression.

### 3.2 Specific aims of the qualification

The Group Award will provide:

- 14 Practical and relevant skills in a safety-conscious context
- 15 Technical skills and knowledge required across each of the BSE industries
  - The BSE industries (Plumbing; Heating and Ventilating; Air Conditioning and Refrigeration; Electrotechnical)
- 16 Progression opportunities for those who achieve the NPA
- 17 The ability to make an immediate contribution in employment in the working environment

## 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 as guidance only.

Learners would benefit from having attained one or more qualifications at SCQF level 4.

### 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 should 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.

There is no other automatic certification of Core Skills or Core Skills components for this Group Award. Opportunities for developing other aspects of Core Skills are highlighted in the Support Notes for this Group Award.

Core Skill	Recommended SCQF entry profile	Associated assessment activities
Communication	4	Learners will be assessed on providing evidence of oral and written communication skills and using a range of verbal and non-verbal communication techniques which will enhance their employability prospects, particularly within the Practical Unit context.
Numeracy	4	The ability to interpret, calculate, apply and communicate numerical and graphical information accurately is integral to achievement of all Practical Units and Occupational Mandatory Units.
Information and Communication Technology (ICT)	4	The ability to interpret, apply and communicate information is essential if learners will be taking part in theoretical activity which includes interactive board technology and participation in SQA SOLAR assessment.
Problem Solving	4	<p>Across all Units, learners will identify problems coherent in the BSE Sector and will devise solutions to a range of issues in practical situations.</p> <p>Learners will apply knowledge gained to resolve these issues, while maintaining a key focus on sustainability and health and safety in the BSE Sector.</p>



Core Skill	Recommended SCQF entry profile	Associated assessment activities
Working with Others	4	Small group or pair working is integral to the delivery of this Core Skill. Practical work may involve formative assessment tasks in which learners develop team working skills essential to the BSE Sector.

## 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 skill, known as Core Skills through doing this qualification.

### 5.0 Requirements of Trade Associations for working in the BSE Sector

It is recommended that candidates are checked for colour-blindness prior to entering the qualification at the requirements of the BSE Sector Trade Associations — SNIPEF, SELECT and BESA — as this condition may impact on a learners ability to work in the practical area of the BSE Sector with regards to the Realistic Working Environment.

## 5.1 Mapping of qualification aims to Units

(Mandatory = M, Optional = O)

Code	Unit title	Unit Type	General and Specific Aims																
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
HF2E 45	Building Services Engineering: Health and Safety	M	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√
FT7X 11	Building Services Engineering: Basic Electrical Installation Operations	M	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√
FT7Y 11	Building Services Engineering: Basic Plumbing Operations	M	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√
FT82 11	Building Services Engineering: Energy and the Environment	M		√	√	√	√	√	√		√	√	√	√	√	√	√	√	√
FT83 11	Building Services Engineering: Systems, Roles and Responsibilities	M		√	√	√	√		√	√	√	√	√	√	√	√	√	√	√
FT84 11	Building Services Engineering: Science	M	√	√	√	√	√		√		√	√	√	√	√		√	√	√
FT80 11	Building Services Engineering: Basic Heating and Ventilation Operations	O	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√
HF2F 45	Building Services Engineering: Basic Heating and Ventilation Principles	O	√	√	√	√	√		√		√	√	√	√	√		√	√	√
FT81 11	Building Services Engineering: Basic Refrigeration and Air Conditioning Operations	O	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√
HF2D 45	Building Services Engineering: Basic Refrigeration and Air Conditioning Principles	O	√	√	√	√	√		√		√	√	√	√	√		√	√	√

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

All of the Units in this Group Award are derived from Summit Skills National Occupational Standards.

Code	Unit title	Unit Type	National Occupational Standard							
			SUMBSE01	SUMET05	SUMPH04	SUMPM16	SUMBSE02	SUMHV04	SUMRAC04	SUMRAC08
HF2E 45	Building Services Engineering: Health and Safety	M	√							
FT7X 11	Building Services Engineering: Basic Electrical Installation Operations	M		√						
FT7Y 11	Building Services Engineering: Basic Plumbing Operations	M			√					
FT82 11	Building Services Engineering: Energy and the Environment	M				√				
FT83 11	Building Services Engineering: Systems, Roles and Responsibilities	M					√			
FT84 11	Building Services Engineering: Science	M		√	√			√	√	√
FT80 11	Building Services Engineering: Basic Heating and Ventilation Operations	O						√		
HF2F 45	Building Services Engineering: Basic Heating and Ventilation Principles	O						√		
FT81 11	Building Services Engineering: Basic Refrigeration and Air Conditioning Operations	O							√	√
HF2D 45	Building Services Engineering: Basic Refrigeration and Air Conditioning Principles	O							√	√

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

(E = Embedded, S = Signposted)

Unit code	Unit title	Communication			Numeracy		ICT		Problem Solving			Working with Others	
		Written (Reading)	Written (Writing)	Oral	Using Number	Using Graphical Information	Accessing Information	Providing/Creating Information	Critical Thinking	Planning and Organising	Reviewing and Evaluating	Working Co-operatively with Others	Reviewing Co-operative Contribution
HF2E 45	Building Services Engineering: Health and Safety	S	S	S					S	S	S	S	S
FT7X 11	Building Services Engineering: Basic Electrical Installation Operations	S	S	S	S	S			E	S	S	S	S
FT7Y 11	Building Services Engineering: Basic Plumbing Operations	S	S	S	S	S			E	S	S	S	S
FT82 11	Building Services Engineering: Energy and the Environment	S	S	S	S	S	S	S	S	S	S	S	S
FT83 11	Building Services Engineering: Systems, Roles and Responsibilities	S	S	S	S	S	S	S	S	S	S	S	S
FT84 11	Building Services Engineering: Science	S	S	S	E	S	S	S	S	S	S	S	S
FT80 11	Building Services Engineering: Basic Heating and Ventilation Operations	S	S	S	S	S			E	S	S	S	S
HF2F 45	Building Services Engineering: Basic Heating and Ventilation Principles	S	S	S	S	S	S	S	S	S	S	S	S
FT81 11	Building Services Engineering: Basic Refrigeration and Air Conditioning Operations	S	S	S	S	S			S	S	S	S	S
HF2D 45	Building Services Engineering: Basic Refrigeration and Air Conditioning Principles	S	S	S	S	S	S	S	S	S	S	S	S

## **5.4 Assessment Strategy for the qualification**

Mandatory Units and Optional Units which are theoretical can be assessed in open/closed-book conditions, project or knowledge based multiple choice assessments or assignment approaches can be utilised. The use of e-assessment should be encouraged for knowledge based multiple choice assessments and assignments.

Practical Outcomes will be assessed according to the requirements of Unit Descriptors. Centres should develop assessor/observation checklists for all Practical Outcomes where Risk Assessment and Health and Safety should be incorporated within the BSE Sector trade disciplines.

Sequencing and Integration of Units is mentioned further in the Group Award Specification.

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

The award has been designed to equip candidates with the knowledge, understanding and skills required for success in employment or further study/training within the Scottish BSE Sector. It is mainly aimed at those who are interested in pursuing a career in one of the BSE Sector industries but would welcome the opportunity to identify which of the BSE industries is most appropriate to their own skills and career aspirations.

This award is not designed to train people to full industrial competence. Rather the award seeks to lead the candidates towards a better understanding of the knowledge and skills requirements associated with each of the BSE industries. There is an emphasis on developing the pre-vocational and employability skills normally taught to an apprentice at the very early stages of time-serving and these basic skills will be very attractive to employers. Candidates can then build on these skills when working towards achieving an SVQ relevant to their interest and capabilities.

The award is designed to allow the candidate to develop an understanding of the BSE Sector, the type of work that goes on in the industries within it and the types of career opportunities presented by each of these industries. The award is also designed to underline the importance of safety, legislation, Codes of Practice and procedures in the workplace. The award also allows the candidate to understand the technical (or applied science) nature of the work that takes place within the BSE Sector and develop the understanding of the concept of energy sources in terms of their carbon 'footprint'.

The programme should be delivered in the context of familiarisation with terminology, basic concepts and working practices and disciplines, including Health and Safety and Sustainability. It is intended that the new NPA at SCQF level 5 will develop a deep appreciation of topics based on accepted BSE Sector practices.

Candidates may go on to apply for an Apprenticeship as an Air Conditioning Engineer; Domestic Plumber; Ductwork Installer; Gas Fitter; Heating Installer; Industrial And Commercial Plumber; Installation Electrician; Maintenance Electrician; Refrigeration Engineer; Service And Maintenance Engineer. Candidates may also go on to higher levels of education, eg the NC or HNC.

## Delivery

The National Progression Award is primarily, but not exclusively, designed to be delivered in a college environment. This is mainly due to the level of the award, the requirement for realistic workplaces and the level of occupational expertise that will be required of the delivery staff.

The award could be offered on a full-time, part-time, block-release, day-release or evening basis. Combination of delivery is also a possibility. Such combined study may enable candidates to complete the award within a shorter time period.

There are opportunities for integrated delivery of Units within the award. Teaching and Learning for the Energy and the Environment Unit could be integrated across the industry specific Units. The Unit specifications will identify specific opportunities for integration with other Units. Similarly there is the opportunity to integrate assessment across the industry specific Units.

It is recognised that the award focuses on the development of candidate knowledge and skills associated with the BSE industries. The Health and Safety component is built into each Unit as appropriate.

There may be opportunities for the introduction of e-learning during the teaching and delivery of the award. The learning and assessments of the knowledge-based Outcomes can be conducted either by using e-learning methods (this could also be used for teaching) or else by traditional teaching techniques. For example, formal assessments may make use of IT systems and facilities when available, or alternatively can also use the standard mode of supervising candidates during classroom paper-based assignments.

It is also recognised that health and safety considerations and the age profile of candidates may present a challenge to centres. However, in order that the quality and integrity of assessments are maintained, centres are reminded that all practical assessments should take place in a realistic working or training environment with appropriate use of simulation where health and safety considerations are key. In addition, appropriate levels of supervision should be applied at all times.

The award is also suitable for those returning to work or transferring from other sectors and could be delivered on a full-time or part-time basis. Similarly, flexible delivery of the NC and HNC ensures that both current and future BSE Sector employees can be accommodated.

## Assessment

The assessments should be designed to ensure an appropriate level of rigour whilst not imposing excessive demands on candidates. The design principles for the award encourage a holistic approach to assessment, and this has been adopted in each Unit specification for the award.

An integrated approach to assessment across the Outcomes in this Unit, and relevant others, is suggested. It is recommended that *Building Services Engineering: Health and Safety* is delivered and assessed before any other Units are undertaken. In addition, the project-based approach may be used to gather evidence of candidate achievement. Centres may also wish to develop the employability skills of the candidates through role-play techniques where appropriate.

Throughout all Units, emphasis should be placed where appropriate on the application of Health and Safety. Safe working practices should be looked at in accordance with current safety codes of practice and regulations.

The assessments should be challenging and meaningful, but nonetheless still achievable for all candidates who are prepared to work to gain the award. They are designed to familiarise candidates with a culture of attainment where assessments will challenge them, but do not put unreasonable obstacles between them and real achievement.

For all NPA Units, assessment is based primarily on assessment of practical activities and supported by knowledge testing where appropriate. Integrated assessment is encouraged.

## 6.1 Sequencing/integration of Units

An integrated approach to delivery and assessment of these Units is essential. Assessment should be carried out in a holistic way as evidence will be generated for the Mandatory and Optional Units collectively.

There is no preferred sequence of delivery for the Mandatory Practical Units; however, early delivery and assessment of the following Unit will develop the learners' knowledge and safety awareness when undertaking Mandatory Practical Unit:

- ◆ *Building Services Engineering: Health and Safety*

A project based approach can be carried out for the following Units thereafter:

- ◆ *Building Services Engineering: Energy and the Environment*
- ◆ *Building Services Engineering: Systems, Roles, Responsibilities and Procedures*
- ◆ *Building Services Engineering: Science*

## 6.2 Recognition of Prior Learning

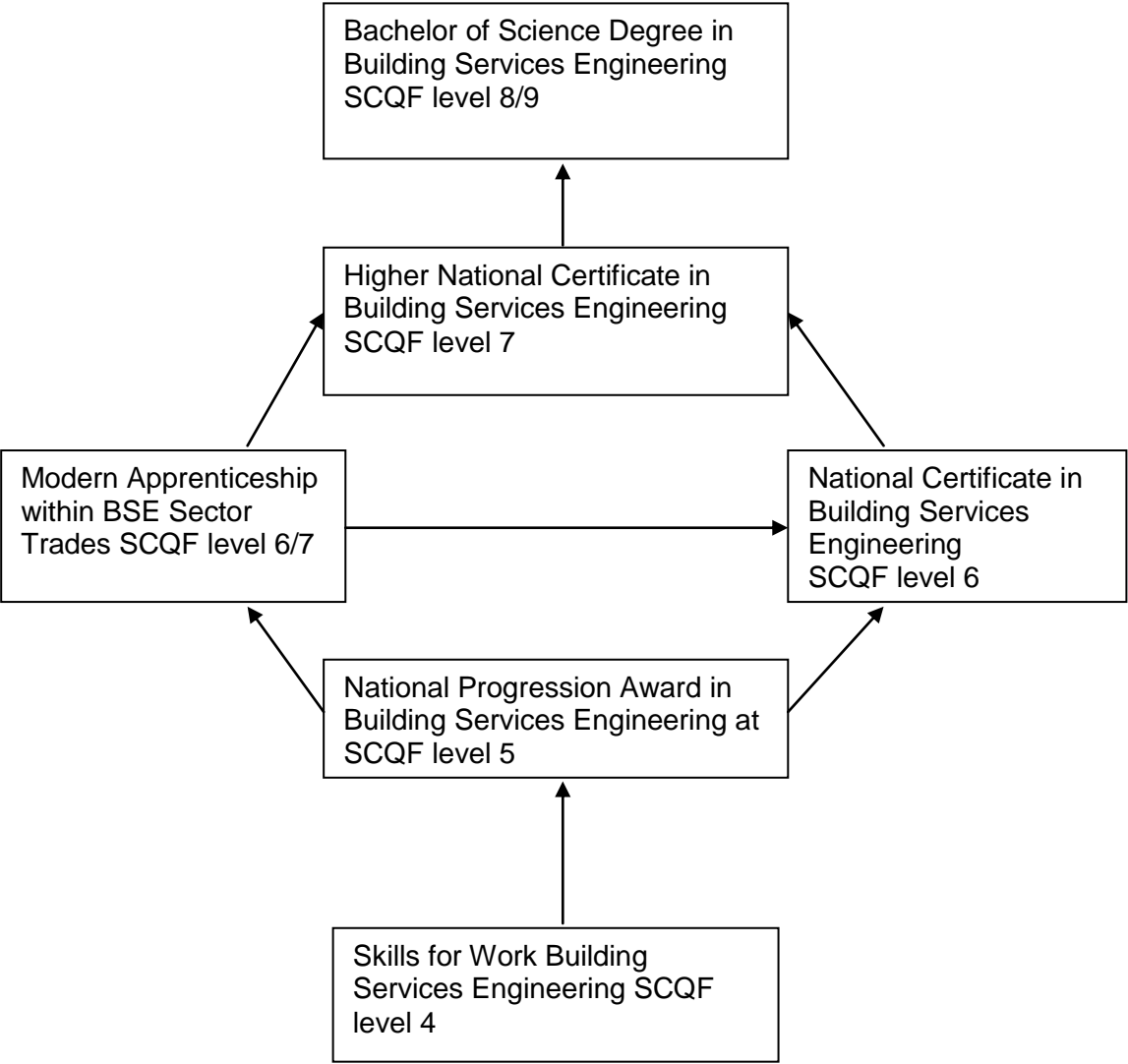
SQA recognises that learners gain knowledge and skills acquired through formal, non-formal and informal learning contexts.

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.

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

### 6.2.1 Articulation and/or progression

This award has been designed as a pre-apprenticeship qualification on the BSE career pathway. The award can be a progression route from the SfW Building Services Engineering award. The award can lead directly on to the NC (at SCQF level 6) or HNC (at SCQF level 7) or allow successful candidates to apply for employment within the sector as appropriate at apprentice level. A progression diagram is inserted below





## 6.2.2 Professional recognition

This award, and its place in the developing BSE suite of awards, is recognised by the relevant trade associations who represent the interests of Employers in the BSE Sector in Scotland:

- ◆ SNIPEF
- ◆ SELECT
- ◆ BESA

## 6.3 Opportunities for e-assessment

The learning and assessments of the knowledge based Outcomes can be conducted by either using e- learning methods, or by traditional teaching approaches.

For example formal assessments may make the use of IT systems and facilities when available, or alternatively can also use the standard mode of supervising candidates during classroom paper based assessments.

## 6.4 Support materials

ASP's will be made available to view on SQA's website by December 2016.

## 6.5 Resource requirements

Centres will need to facilitate practical and knowledge assessments when required this would include specialist practical workshop, materials, equipment and access equipment according to the requirements of the Summit Skills Assessment Strategy.

An appropriate ICT facility will be required for secure e-assessment if undertaking SQA SOLAR activity.

# 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 [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements).

## Internal and external verification

All instruments of assessment used within this/these qualification(s) 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* ([www.sqa.org.uk/GuideToAssessment](http://www.sqa.org.uk/GuideToAssessment)).

## 8 Glossary of terms

**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 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:

- ◆ 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)

**Graded Unit:** Graded Units assess learners' ability to integrate what they have learned while working towards the Units of the Group Award. Their purpose is to add value to the Group Award, making it more than the sum of its parts, and to encourage learners to retain and adapt their skills and knowledge. (**Note to writer:** delete if not applicable to product type)

**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 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 [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 6–9 and Graded Units will be at level 7 and 8. National Qualification Group Awards are available at SCQF levels 2–6 and will normally be made up of National Units which are available from SCQF levels 2–7.

**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.

**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 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.

## 9 General information for learners

This section 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.

The award is a mainly competence-based qualification with appropriate practical exercises. You will spend the majority of your time in a training or simulated work environment, and is designed to equip you with the knowledge, understanding and skills which are required by employers in the BSE sector.

It also allows you to progress towards further qualifications, such as the NC or HNC or to apply directly for employment as an apprentice within the BSE Sector. An apprenticeship in the sector will involve you undertaking the relevant SVQ which helps you to achieve full and recognised industrial competence.

You will be assessed on the knowledge and skills that you have developed in each Unit. There are several possible types of assessment, including multiple choice questions, practical tasks with checklists, and other practical activities working in teams. The practical Units will teach you the basic skills and knowledge needed to carry out practical work and to work with others. You will then be asked to complete these practical tasks yourself in order to demonstrate your range of abilities.

The Course is designed to give you an understanding of the following aims relevant to the BSE Sector:

- ◆ Practical knowledge and skills
- ◆ Ability to solve problems
- ◆ Transferable skills
- ◆ Ability to be flexible and work cooperatively with others
- ◆ Ability to take responsibility for their own learning
- ◆ Awareness of sustainability and environmental measures in BSE
- ◆ Employment and behavioural skills
- ◆ Understanding of Health and Safety in the BSE Sector
- ◆ Planning and organisational skills
- ◆ Oral, written and communication skills
- ◆ Numerical and graphical skills
- ◆ ICT skills
- ◆ Flexibility, knowledge, skills and motivation as a basis for progression
- ◆ Practical and relevant skills in a safety-conscious context
- ◆ Technical skills and knowledge required across each of the BSE industries
- ◆ The BSE industries (Plumbing; Heating and Ventilating; Air Conditioning and Refrigeration; Electrotechnical)
- ◆ Progression opportunities for those who achieve the NPA
- ◆ The ability to make an immediate contribution in employment in the working environment

Occupations are available with a variety of companies in the BSE sector. If you wish to investigate career opportunities in the building industry you can contact Summit Skills at [www.summitskills.org.uk](http://www.summitskills.org.uk).