

# apprenticeship FRAMEWORK

## Domestic Heating (Wales)

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# Domestic Heating (Wales)

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# Framework summary

## Domestic Heating

### Domestic Heating

#### Pathways for this framework at level 2 include:

##### Pathway 1: Domestic Heating

**Competence qualifications available to this pathway:**

N/A

**Knowledge qualifications available to this pathway:**

N/A

**Combined qualifications available to this pathway:**

B1 - Level 2 NVQ Diploma in Domestic Heating

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

## Domestic Heating

### Apprenticeship (Level 3) in Domestic Heating

#### Pathways for this framework at level 3 include:

##### Pathway 1: Domestic Heating (Oil-Fired, Solid Fuel or Environmental Options)

**Competence qualifications available to this pathway:**

N/A

**Knowledge qualifications available to this pathway:**

N/A

**Combined qualifications available to this pathway:**

B1 - Level 3 NVQ Diploma in Domestic Heating (QCF)

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

##### Pathway 2: Domestic Heating (Gas-Fired Warm Air Appliances)

**Competence qualifications available to this pathway:**

N/A

**Knowledge qualifications available to this pathway:**

N/A

**Combined qualifications available to this pathway:**

B1 - Level 3 NVQ - Domestic Heating (Gas-fired warm air appliances)

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

**Pathway 3: Domestic Heating (Gas-Fired Water & Central Heating appliances)**

**Competence qualifications available to this pathway:**

N/A

**Knowledge qualifications available to this pathway:**

N/A

**Combined qualifications available to this pathway:**

B1 - Level 3 NVQ Diploma in Domestic Heating (Gas Fired Water & Central Heating Appliances) (QCF)

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

# Framework information

## Information on the Publishing Authority for this framework:

### Instructus

The Apprenticeship sector for occupations in air conditioning, building services engineering, business and administration, cleaning, customer service, digital/information technology, electro technical, electrical and electronic servicing, enterprise and business support, facilities management, heating and ventilating, housing, human resources and recruitment, industrial relations, leadership and management, marketing and sales (also includes contact centres and third sector), plumbing, property and refrigeration.

Issue number: 4	<b>This framework includes:</b>  Level 2 Level 3
Framework ID: FR03701	
Date this framework is to be reviewed by: 01/04/2016	
<b>This framework is for use in: Wales</b>	

## Short description

Apprenticeships for occupations in the Domestic Heating Industry are designed to meet the industry's competence requirements. At Foundation Level you will be involved in the installation or service and maintenance of Domestic Heating systems eg pipework, radiators, hot water systems etc. Then at Apprenticeship (Level 3) you may work with gas/solid fuel boilers and Environmental Technologies eg Solar Thermal; Ground/Air Source Heat Pumps etc

This Apprenticeship framework document contains two occupation pathways at different levels:

### ***Foundation (Level 2)***

- Domestic Heating

### Job role

- Domestic Heating Systems Installer

and

***Apprenticeship (Level 3)***

- Domestic Heating

Job roles

- Advanced Domestic Heating Installer

# Contact information

## Proposer of this framework

SummitSkills the Sector Skills Council for the Domestic Heating industry regularly engages with employers, manufacturers, trade associations and training providers to ensure frameworks continue to remain fit-for-purpose in periodic reviews

Additional engagement activities include direct consultations by email and telephone with stakeholders.

## Developer of this framework

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# Revising a framework

## Contact details

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## Why this framework is being revised

As this framework is over 4 years old a review has taken place of any changes needed to this document and this includes new contact details for the developers and issuing authority to make sure the framework meets or exceeds the requirements of apprenticeships across the UK.

## Summary of changes made to this framework

Contact details have been amended as those listed have left SummitSkills, changes made to ERR evidence requirements, additional progression opportunities and an additional qualification has been added with details below

## Qualifications removed

N/A

## Qualifications added

LCL Level 3 Award in Energy Efficiency for Gas fired and Oil fired domestic heating and Hot water systems (QCF) 601/3942/0

## Qualifications that have been extended

N/A



# Purpose of this framework

## Summary of the purpose of the framework

These occupation frameworks are designed to provide new entrants and those seeking progression in their career with the opportunity to develop competencies needed to carry out job roles and responsibilities associated with the installation, maintenance, commissioning and servicing of domestic heating systems, including relevant:

- Sustainable Buildings Best Practices
- Environmental Technologies
- Technological requirements and changes
- Statutory and Non- Statutory Regulations & Requirements

It will also contribute towards meeting the skills priorities for Wales, highlighted in the following extract from 'The National Strategic Skills Audit for Wales; June 2011'

<http://www.ukces.org.uk/publications/nssa-wales-vol-1> and the Economic Renewal: A new direction

<http://wales.gov.uk/topics/businessandconomy/publications/economicrenewal/?lang=en>

***"The Audit highlights the growing importance of technicians, the importance of replacement demands with regard to intermediate jobs in more traditional areas (skilled trades, for example); and the persistence of skills shortages at this level, perhaps seeing only temporary moderation due to the recession. Moreover, skilled trades are expected to be a key part of the skills mix within emerging sectors with high productivity levels, including elements of advanced manufacturing."***

Your employer's business could include the installation, service, maintenance and repair of a variety of heating systems and equipment, including:

- Plastic and Copper Water Pipes
- Heating Systems fueled by Gas; Solar Thermal; Heat Pumps; Oil and Coal

These products could be installed in premises where not only are the technical skills needed but also the skills of customer service and communication.

Successful completion of the Foundation Level framework equips an apprentice with the ability to select and use relevant knowledge, ideas, skills and procedures to complete well defined tasks and address straightforward problems. They include taking responsibility for completing tasks and procedures, and exercising autonomy and judgement subject to overall direction or guidance. Successful candidates then have the option to further develop their skills, knowledge and competence by progressing onto the Apprenticeship (Level 3) framework.

Successful completion of the Apprenticeship (Level 3) framework equips an apprentice with the ability to identify and use relevant understanding, methods and skills to complete tasks and address problems that, while well defined, have a measure of complexity. They include taking responsibility for initiating and completing tasks and procedures as well as exercising autonomy and judgement within parameters. They also reflect awareness of different perspectives or approaches within an area of study or work.

The following job roles will be covered in the Foundation (Level 2) and Apprenticeship (Level 3) frameworks respectively:

- Domestic Heating Systems Installer
- Advanced Domestic Heating Systems Installer

### **Aims and objectives of this framework (Wales)**

The aim of these occupation frameworks is to ensure that the Foundation (Level 2) and Apprenticeship (Level 3) programmes deliver:

- The Skills and Knowledge required by the industry to achieve competence
- Job related skills that will be used in the working environment
- New entrants to replace those retiring or leaving the sector
- Transferable Skills such as problem solving, communication, team working, literacy, numeracy and IT skills which are a priority for the sector
- Career progression

Employers have endorsed this programme as it delivers qualified competent employees and improves productivity and retention.

Where Recognition of Prior Learning (RPL) is applied in relation to competence, knowledge or Essential Skills, the Apprenticeship programme must be tailored to allow the Apprentice to undertake new learning, including learning at a higher level and developing new skills.

Further career guidance can be found at:

<http://www.summitskills.org.uk/building-services-apprenticeships-careers>

# Entry conditions for this framework

Although there are generally no nationally laid-down minimum entry or previous experience requirements to undertake the Foundation (Level 2) and Apprenticeship (Level 3) frameworks in the Domestic Heating Industry, the following selection criteria may be used as guidance.

The programmes are likely to be suitable for individuals who:

- Have an aptitude for technical subjects and/or are practically minded
- Have an interest in technology
- Can demonstrate an ability to solve practical problems
- Have a portfolio of evidence of practical work experience, non-accredited courses, volunteering or have previously worked in the sector

A career in this industry will not only reward an apprentice's potential, but also offer opportunities to enhance their technical capability. The industry needs new entrants of appropriate ability and offers a varied and rewarding career in a challenging working environment.

Other selection criteria may include:

- Ability to communicate effectively with a range of people
- Being numerate and literate as a significant amount of paperwork will be involved
- Good colour vision to recognise colour coded wires and components
- Willingness to learn to drive if you don't already have a driving licence as much of the work will require you to drive to customers' premises (Insurance requirements may differ per company)
- Ability to work at heights or in confined spaces
- Willingness to work outside and carry out manual handling tasks as some materials and equipment are heavy
- Willingness to work unsociable hours
- Willingness to undergo a Criminal Records Bureau (CRB)/Disclosure and Barring Service (DBS) check when required
- Willingness to work safely and respectfully in support of safeguarding policies

Examples of formal qualifications that can be used as an indication that an applicant has the potential to progress into and complete either the Foundation (Level 2) or Apprenticeship (Level 3) frameworks can be found in each individual occupation pathway.

No individual should be refused access to an initial assessment on the basis of educational qualifications alone. The ultimate responsibility for selection will rest with the individual employer.

## Level 2

Title for this framework at level 2

# Domestic Heating

### Pathways for this framework at level 2

Pathway 1: Domestic Heating

## Level 2, Pathway 1: Domestic Heating

### Description of this pathway

Domestic Heating - the installation and maintenance of domestic heating systems and products (Central Heating & Water systems, underfloor heating etc) - 84 credits in total

- 66 credits for the combined (Knowledge 14 credits & Competence 52 credits) qualification
- 18 credits for Essential Skills Wales - Communication, Application of Number & IT

Where Recognition of Prior Learning (RPL) is applied in relation to competence, knowledge or Essential Skills, the Apprenticeship programme must be tailored to allow the Apprentice to undertake new learning, including learning at a higher level and developing new skills.

In order to demonstrate the industry recognised level of competence reflected by this Foundation framework it is expected the minimum duration for its completion will be **no less than 24 months**.

### Entry requirements for this pathway in addition to the framework entry requirements

Examples of formal qualifications that can be used as an indication that an applicant has the potential to progress into and complete the Foundation (Level 2) framework in Domestic Heating are:

- Welsh Baccalaureate Foundation Diploma OR
- Completion of a 'Pathway to Apprenticeship' in Domestic Heating OR
- Essential Skills or Key Skills in Communication and Application of Number at Level 2 and ICT at Level 1 OR
- GCSE grade A-D in each of the following:- a communication subject, maths and either a science or technical-based subject OR
- Level 1 GNVQs in relevant vocational/technical subjects OR
- A Level 1 'Access to Building Services Engineering' qualification

<b>Job title(s)</b>	<b>Job role(s)</b>
Domestic Heating Systems Installer	Works under minimal supervision to complete the installation and maintenance of domestic hot water, cold water and central heating systems and components

# Qualifications

## Competence qualifications available to this pathway

N/A

## Knowledge qualifications available to this pathway

N/A

## Combined qualifications available to this pathway

B1 - Level 2 NVQ Diploma in Domestic Heating						
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value	Total qualification time
B1a	501/1606/X	EAL	66	522	N/A	
B1b	501/2102/9	City & Guilds	66	522	N/A	
B1c	600/5271/5	BPEC	66	522	N/A	

## Relationship between competence and knowledge qualifications

This framework requires the completion of one of the combined qualifications B1a, B1b or B1c identified in the combined qualifications section B1 above.

Qualification Title - Level 2 NVQ Diploma in Domestic Heating, which has the following units:

### Knowledge Units

- Understand how to communicate with others in building services engineering J/602/2482 **Unit Credit Value 3**
- Understand how to apply environmental protection measures in building services engineering D/602/2486 **Unit Credit Value 4**
- Understand how to apply scientific principles in MES J/602/2496 **Unit Credit Value 7**

**Knowledge Element = 14 Credits**

### Competence Units

- Apply safe working practices in building services engineering working environments T/602/2493 **Unit Credit Value 2**
- Install and maintain domestic heating systems R/602/2971 **Unit Credit Value 4**
- Understand and carry out safe working practices in building services engineering J/602/2479 **Unit Credit Value 10**
- Understand and carry out site preparation, and pipework fabrication techniques for domestic plumbing and heating systems D/602/2682 **Unit Credit Value 10**
- Understand and apply domestic cold water system installation and maintenance techniques H/602/2697 **Unit Credit Value 8**



- Understand and apply domestic hot water system installation and maintenance techniques F/602/2884 **Unit Credit Value 8**
- Understand and apply domestic central heating system installation and maintenance techniques Y/602/2888 **Unit Credit Value 10**

**Competence Element = 52 credits**

**Total Qualification = 66 credits**

For further qualification details refer to: <http://register.ofqual.gov.uk/> and search by the relevant qualification or unit number.

# Transferable skills (Wales)

## Essential skills (Wales)

Subject	Minimum Level
Communication	2
Application of numbers	2
ICT/Digital literacy	1

For a full list of available proxies for starts on or after 14th October 2016 please see section 24 of the current [SASW](#).

## Progression routes into and from this pathway

### Progression routes into this pathway:

Applicants may come from a range of routes including:

- Welsh Baccalaureate Foundation Diploma
- Completion of a Welsh Government 'Pathway to Apprenticeship' in Domestic Heating
- Work or work experience
- Training and/or experience which could include a portfolio showing what they have done
- Academic qualification(s) such as three GCSEs grades A-D in each of the following:- a communication subject, maths and either a science or technical-based subject
- Achievement of Essential Skills or Wider KeySkills
- Level 1 GNVQs in relevant vocational/technical subjects
- A Level 1 'Access to Building Services Engineering' qualification

No individual should be refused access to an initial assessment on the basis of educational qualifications alone. The ultimate responsibility for selection will rest with the individual employer.

### Progression routes out of this pathway:

On successful completion of the Foundation (Level 2) framework in Domestic Heating, an apprentice will normally spend time consolidating their roles and practicing their skills for a period of time before progressing into:

- Learning and assessment programmes that lead to relevant Level 3 qualifications and/or an Apprenticeship (Level 3) framework in Domestic Heating OR
- Taking a relevant Trade Test to demonstrate competence to work in other UK countries

- Progress in their career with further training into such job roles as Technician, Designer Estimator, Project Manager, Site/Workshop Supervisor/Manager, Chartered Engineer, Sales Engineer or Commercial Manager

Also whilst this sector doesn't currently have a 'Licence to Practice', our apprenticeships are recognised as fulfilling the competence requirements of the voluntary card schemes and will enable you to register on a relevant industry recognised Certification Scheme. Completion of this framework will provide the evidence required that you are deemed competent to carry out this job role effectively and safely.

Further career guidance can be found at: <http://www.summitskills.org.uk/building-services-apprenticeships-careers>

# Employee rights and responsibilities

The Employee Rights and Responsibilities (ERR) elements identified below will be achieved through an induction programme, in combination with the Level 2 NVQ Diploma in Domestic Heating qualification (EAL 501/1606/X, BPEC 600/5271/5 or City & Guilds 501/2102/9) into which they are integrated and signposted. The ERR elements will be evidenced by the issuing of a qualification achievement certificate plus the declaration consent form when claiming for the apprenticeship certificate.

1. knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well. This should cover the apprentices rights and responsibilities under the Disability Discrimination Act, other relevant equalities legislation and Health and Safety, together with the responsibilities and duties of employers;
2. knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer. Health and Safety and Equality and Diversity training must be an integral part of the apprentice's learning programme;
3. knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities. Details of Access to Work and Additional Learning Support must be included in the programme;
4. understands the role played by their occupation within their organisation and industry;
5. has an informed view of the types of career pathways that are open to them;
6. knows the types of representative bodies and understands their relevance to their industry and organisation, and their main roles and responsibilities;
7. knows where and how to get information and advice on their industry, occupation, training and career;
8. can describe and work within their organisations principles and codes of practice;
9. recognises and can form a view on issues of public concern that affect their organisation and industry

# Additional employer requirements

*(No requirement specified)*

## Level 3

Title for this framework at level 3

# Apprenticeship (Level 3) in Domestic Heating

### Pathways for this framework at level 3

- Pathway 1: Domestic Heating (Oil-Fired, Solid Fuel or Environmental Options)
- Pathway 2: Domestic Heating (Gas-Fired Warm Air Appliances)
- Pathway 3: Domestic Heating (Gas-Fired Water & Central Heating appliances)

## Level 3, Pathway 1: Domestic Heating (Oil-Fired, Solid Fuel or Environmental Options)

### Description of this pathway

Domestic Heating (Oil-Fired, Solid Fuel or Environmental Options) - Installing, commissioning, maintaining & servicing domestic heating systems. Total credits for this pathway = 72 - 91 depending on options taken

- Minimum 60 credits for the combined (Knowledge 11 credits & Competence 49 credits) qualification
- 12 credits for Essential Skills Wales Communication and Application of Number

Where Recognition of Prior Learning (RPL) is applied in relation to competence, knowledge or Essential Skills, the Apprenticeship programme must be tailored to allow the Apprentice to undertake new learning, including learning at a higher level and developing new skills.

In order to demonstrate the industry recognised level of competence reflected by this Apprenticeship (Level 3) framework it is expected the minimum duration for its completion will be **no less than 24 months**.

### Entry requirements for this pathway in addition to the framework entry requirements

The Domestic Heating Industry would normally expect entry into this framework to be for those who have already successfully completed a Foundation (Level 2) framework in Domestic Heating and spent time consolidating their roles and practicing their skills. Alternatively it is for those individuals with the experience and knowledge comparable with the requirements of that programme. The structured learning and assessment programme of this framework will enhance the skills and knowledge of the entrant to the benefit of employers and apprentices alike.

Examples of formal qualifications that can be used as an indication that an applicant has the potential to progress into and complete the Apprenticeship (Level 3) framework in Domestic

Heating are:

- Successful completion of the Foundation (Level 2) framework in Domestic Heating
- Welsh Baccalaureate Intermediate Diploma OR
- Completion of a Welsh Government 'Pathway to Apprenticeship' in Domestic Heating OR
- GCSE grade A-C in each of the following:- a communication subject, maths and either a science or technical-based subject OR
- Essential Skills Wales or Key Skills in Communication and Application of Number and IT at Level 2 OR
- Level 2 GNVQs in relevant vocational/technical subjects OR
- A Level 2 'Access to Building Services Engineering' qualification



<b>Job title(s)</b>	<b>Job role(s)</b>
Advanced Domestic Heating Installer (Oil-Fired, Solid Fuel or Environmental options)	Completes and oversees work to install, service, maintain and commission Oil-Fired, Solid Fuel, or Environmental domestic heating systems and associated components

# Qualifications

## Competence qualifications available to this pathway

N/A

## Knowledge qualifications available to this pathway

N/A

## Combined qualifications available to this pathway

B1 - Level 3 NVQ Diploma in Domestic Heating (QCF)						
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value	Total qualification time
B1a	600/1253/5	EAL	60 - 79	477 - 587	N/A	
B1b	600/1473/8	City & Guilds	60 - 79	477 - 587	N/A	
B1c	600/6871/1	BPEC	60 - 79	477 - 587	N/A	

## Relationship between competence and knowledge qualifications

This framework requires the completion of the combined qualifications B1a, B1b or B1c identified in the combined qualifications section B1 above.

Qualification Title - Level 3 NVQ Diploma in Domestic Heating, which has a variety of unit combinations to enable achievement. You must complete the common mandatory group of units worth 48 credits plus one of the three optional groups PG1, PG2 or PG3 (which may also include both mandatory and optional routes)

### **Common Mandatory group**

#### **Knowledge Unit**

- Understand how to organise resources in building services engineering R/602/2498 **Unit Credit Value 3**

**Knowledge Element = 3 credits**

#### **Competence Units**

- Understand and carry out electrical work on domestic plumbing and heating systems and components T/502/9157 **Unit Credit Value 12**
- Install, commission, service and maintain domestic heating A/502/8933 **Unit Credit Value 3**
- Understand and apply domestic cold water system installation, commissioning, service

and maintenance techniques K/502/8930 **Unit Credit Value 9**

- Understand and apply domestic hot water system installation, commissioning, service and maintenance techniques K/502/9155 **Unit Credit Value 9**
- Understand and apply domestic central heating system installation, commissioning, service and maintenance techniques M/502/9156 **Unit Credit Value 12**

**Competence Element = 45 credits**

**Knowledge + Competence = 48 credits**

### **Optional Groups**

**GROUP PG1 - Oil Firing Pathway** (Knowledge 22 credits, Competence 55 credits = 77 credits in total. Comprising 48 credits from the common mandatory group, 16 credits from the pathway mandatory group plus 13 credits from the optional unit routes below)

### **Pathway Mandatory group**

#### **Knowledge units**

- Understand core oil firing safety principles in domestic building services engineering H/502/9557 **Unit Credit Value 12**

**Knowledge Element = 12 credits**

#### **Competence units**

- Apply core oil firing safety in domestic building services engineering L/502/9391 **Unit Credit Value 4**

**Competence Element = 4 credits**

Plus:

### **Optional Units Route 1**

#### **Knowledge Units**

- Understand the principles of domestic oil firing pressure jet appliances D/502/9394 **Unit Credit Value 7**

**Knowledge Element = 7 credits**

#### **Competence Units**

- Install, test and commission domestic oil firing pressure jet appliances Y/502/9393 **Unit Credit Value 3**
- Service and maintain domestic oil firing pressure jet appliances M/502/9402 **Unit Credit Value 4**

### **Value 3**

**Competence Element = 6 credits**

Or:

### **Optional Units Route 2**

#### **Knowledge Units**

- Understand the principles of domestic oil firing vaporising appliances T/502/9403 **Unit Credit Value 7**

**Knowledge Element = 7 credits**

#### **Competence Units**

- Service and maintain domestic oil firing vaporising appliances F/502/9405 **Unit Credit Value 3**
- Install, test and commission domestic oil firing vaporising appliances A/502/9404 **Unit Credit Value 3**

**Competence Element = 6 credits**

**PG2 - Solid Fuel Pathway** (Knowledge 22 or 25 credits, Competence 55 or 54 credits = 77 or 79 credits in total depending on option taken. Comprising 48 credits from the common mandatory group, 16 credits from the pathway mandatory group plus 13 or 15 credits from one of the optional unit routes below)

### **Pathway Mandatory Group**

#### **Knowledge Units**

- Understand core solid fuel safety principles in domestic building services engineering J/502/9406 **Unit Credit Value 12**

**Knowledge Element = 12 credits**

#### **Competence Units**

- Apply core solid fuel safety in domestic building services engineering L/502/9407 **Unit Credit Value 4**

**Competence Element = 4 credits**

Plus:

### **Optional Units Route 1**

## Knowledge Units

- Understand the principles of domestic solid mineral fuel burning appliances R/502/9408  
*Unit Credit Value 7*

**Knowledge Element = 7 credits**

## Competence Units

- Service and maintain domestic solid mineral fuel burning appliances L/502/9410 *Unit Credit Value 3*
- Install, test and commission domestic solid mineral fuel burning appliances Y/502/9409  
*Unit Credit Value 3*

**Competence Element = 6 credits**

## Optional Units Route 2

### Knowledge Units

- Understand the installation and commissioning principles of biomass fuel burning appliances R/502/9411 *Unit Credit Value 7*
- Understand the service and maintenance principles of biomass fuel burning appliances Y/502/9412 *Unit Credit Value 3*

**Knowledge Element = 10 credits**

### Competence Units

- Service and maintain domestic biomass fuel burning appliances H/502/9414 *Unit Credit Value 2*
- Install, test and commission domestic biomass fuel burning appliances K/502/9415 *Unit Credit Value 3*

**Competence Element = 5 credits**

**PG3 - Environmental Technologies Pathway** (Knowledge 11 credits, Competence 49 credits = 60 credits in total. Comprising 48 credits from the common mandatory group, 2 credits from the pathway mandatory knowledge unit plus 10 credits from one of the optional unit routes below)

### **Pathway Mandatory Knowledge Unit**

- Understand the fundamental principles and requirements of environmental technology systems K/602/3138 *Unit Credit Value 2*

Plus:

## Optional Units Route 1

### Knowledge Units

- Know the requirements to install, commission and handover solar thermal hot water systems F/602/3100 **Unit Credit Value 4**
- Know the requirements to inspect, service and maintain 'active' solar thermal hot water systems Y/602/3104 **Unit Credit Value 2**

**Knowledge Element = 6 credits**

### Competence Units

- Install, commission and handover 'active' solar thermal hot water systems L/602/3102 **Unit Credit Value 2**
- Inspect, service and maintain 'active' solar thermal hot water systems K/602/3107 **Unit Credit Value 2**

**Competence Element = 4 credits**

Or:

## Optional Units Route 2

### Knowledge Units

- Know the requirements to install, commission and handover heat pump systems - non-refrigerant circuits Y/602/3054 **Unit Credit Value 4**
- Know the requirements to inspect, service and maintain heat pump system installations - non-refrigerant circuits F/602/3078 **Unit Credit Value 2**

**Knowledge Element = 6 credits**

### Competence Units

- Install, commission and handover heat pumps - non-refrigerant circuits D/602/3072 **Unit Credit Value 2**
- Inspect, service and maintain heat pump installations - non-refrigerant circuits L/602/3083 **Unit Credit Value 2**

**Competence Element = 4 credits**

Or:

## Optional Units Route 3

### Knowledge Units

- Know the requirements to inspect, service and maintain rainwater harvesting and greywater reuse systems M/602/3111 **Unit Credit Value 2**
- Know the requirements to install, commission and handover rainwater harvesting and greywater reuse systems T/602/3109 **Unit Credit Value 4**

**Knowledge Element = 6 credits**

### **Competence Units**

- Install, commission and handover rainwater harvesting and greywater reuse systems K/602/3110 **Unit Credit Value 2**
- Inspect, service and maintain rainwater harvesting and greywater reuse systems A/602/3130 **Unit Credit Value 2**

**Competence Element = 4 credits**

For further qualification details refer to: [register.ofqual.gov.uk/Qualification](https://register.ofqual.gov.uk/Qualification) and search by the relevant qualification or unit number.



# Transferable skills (Wales)

## Essential skills (Wales)

Subject	Minimum Level
Communication	2
Application of numbers	2
ICT/Digital literacy	N/A

For a full list of available proxies for starts on or after 14th October 2016 please see section 35 of the current [SASW](#).

## Progression routes into and from this pathway

### Progression routes into this pathway:

Applicants may come from a range of routes including:

- Successful completion of a Foundation (Level 2) framework in Domestic Heating
- Successful completion of a Welsh Baccalaureate Intermediate Diploma
- Successful completion of a Welsh Government 'Pathway to Apprenticeship' in Domestic Heating
- Work or work experience
- Training and/or experience which could include a portfolio showing what they have done
- Academic qualification(s) such as three GCSEs grades A-C in each of the following:- a communication subject, maths and either a science or technical-based subject
- Achievement of Essential Skills or Wider KeySkills at Level 2
- Level 2 GNVQs in relevant vocational/technical subjects
- Completion of a Level 2 'Access to Building Services Engineering' qualification

No individual should be refused access to an initial assessment on the basis of educational qualifications alone. The ultimate responsibility for selection will rest with the individual employer.

### Progression routes out of this pathway:

On successful completion of the Apprenticeship (Level 3) framework in Domestic Heating, an apprentice will have the skills, knowledge and qualifications to:

- Progress to relevant Level 4/5 qualifications e.g. Building Services Engineering Technology & Project Management or Foundation Degree in Engineering

- Progress onto the Level 6 Apprenticeships related to this field such as in Building Services Engineering Technology & Project Management
- Take a relevant Trade Test to demonstrate competence to work in other UK countries
- Progress in their career with further training into such job roles as Technician, Designer, Estimator, Project Manager, Site/Workshop Supervisor/ Manager, Chartered Engineer, Sales Engineer or Commercial Manager

Also whilst this sector doesn't currently have a 'Licence to Practice' our apprenticeships are recognised as fulfilling the competence requirements of the voluntary card schemes and will enable you to register on a relevant industry recognised Certification Scheme which is evidence that an operative is deemed competent to carry out a particular job role effectively and safely.

Further career guidance can be found at: <http://www.summitskills.org.uk/building-services-apprenticeships-careers>

**UCAS points for this pathway: N/A**

# Employee rights and responsibilities

The normal entry into this programme would be through the previous completion of the Foundation (Level 2) framework in Domestic Heating programme into which the Employee Rights and Responsibilities (ERR) elements identified below are integrated and signposted and will be automatically evidenced by the issuing of a qualification achievement certificate. Recognition of Prior Learning (RPL) may therefore be applied if ERR is gained in this way or from another programme.

Alternatively the ERR elements identified below must be achieved through an induction programme, in combination with the Level 3 NVQ Diploma in Domestic Heating qualifications either EAL (600/1253/5), City & Guilds (600/1473/8) or BPEC (600/6871/1) into which they are integrated and signposted. The ERR elements will be evidenced by the issuing of a qualification achievement certificate plus the declaration consent form when claiming for the apprenticeship certificate.

The delivery and assessment of ERR must be designed so that the apprentice:

1. knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well. This should cover the apprentice's rights and responsibilities under the Disability Discrimination Act, other relevant equalities legislation and Health & Safety, together with the responsibilities and duties of employers.
2. knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer. Health & Safety and Equality & Diversity training must be an integral part of the apprentice's learning programme;
3. knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities. Details of Access to Work and Additional Learning Support must be included in the programme
4. understands the role played by their occupation within their organisation and industry;
5. has an informed view of the types of career pathways that are open to them;
6. knows the types of representative bodies and understands their relevance to their industry and organisation, and their main roles and responsibilities
7. knows where and how to get information and advice on their industry, occupation, training and career;
8. can describe and work within their organisations principles and codes of practice;
9. recognises and can form a view on issues of public concern that affect their organisation and industry

# Additional employer requirements

*(No requirement specified)*

## Level 3, Pathway 2: Domestic Heating (Gas-Fired Warm Air Appliances)

### Description of this pathway

Domestic Heating (Gas-Fired Warm Air Appliances) - for operatives who will primarily be working on gas fired warm air appliances - Total Framework credits 139

- 127 credits for the combined (Knowledge 16 credits & Competence 111 credits) qualification
- 12 credits for Essential Skills Wales Communication and Application of Number

Where Recognition of Prior Learning (RPL) is applied in relation to competence, knowledge or Essential Skills, the Apprenticeship programme must be tailored to allow the Apprentice to undertake new learning, including learning at a higher level and developing new skills.

In order to demonstrate the industry recognised level of competence reflected by this Apprenticeship (Level 3) framework it is expected the minimum duration for its completion will be **no less than 24 months**.

### Entry requirements for this pathway in addition to the framework entry requirements

The Domestic Heating Industry would normally expect entry into this framework to be for those who have already successfully completed a Foundation (Level 2) framework in Domestic Heating and spent time consolidating their roles and practicing their skills. Alternatively it is for those individuals with the experience and knowledge comparable with the requirements of that programme. The structured learning and assessment programme of this framework will enhance the skills and knowledge of the entrant to the benefit of employers and apprentices alike.

Examples of formal qualifications that can be used as an indication that an applicant has the potential to progress into and complete the Apprenticeship (Level 3) framework in Domestic

Heating are:

- Successful completion of a Foundation (Level 2) framework in Domestic Heating
- Welsh Baccalaureate Intermediate Diploma OR
- Completion of a 'Pathway to Apprenticeship' in Domestic Heating OR
- GCSE grade A-C in each of the following:- a communication subject, maths and either a science or technical-based subject OR
- Level 2 Essential Skills Wales in Communication, Application of Number & IT OR
- Level 2 GNVQs in relevant vocational/technical subjects OR
- A Level 2 'Access to Building Services Engineering' qualification

<b>Job title(s)</b>	<b>Job role(s)</b>
Advanced Domestic Heating Installer (Gas-Fired warm air)	Completes, oversees and organises work to install, service, maintain and commission gas-fired warm air domestic heating systems and associated components

# Qualifications

## Competence qualifications available to this pathway

N/A

## Knowledge qualifications available to this pathway

N/A



## Combined qualifications available to this pathway

B1 - Level 3 NVQ - Domestic Heating (Gas-fired warm air appliances)						
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value	Total qualification time
B1a	600/1116/6	City & Guilds	127	861	N/A	
B1b	600/1453/2	EAL	127	861	N/A	
B1c	600/6287/3	BPEC	127	861	N/A	

## Relationship between competence and knowledge qualifications

This framework requires the completion of the combined qualification B1a, B1b or B1c identified in the combined qualifications section B1 above.

Qualification Title - Level 3 NVQ Diploma in Domestic Heating (Gas-Fired Warm Air Appliances), which has the following units:

- **Knowledge Units**
- Understand how to organise resources in building services engineering R/602/2498 **Unit Credit Value 3**
- Understand core gas safety principles for natural gas in domestic building services engineering J/502/9390 **Unit Credit Value 13**

**Knowledge Element = 16 Credits**

### Competence units

- Understand and carry out electrical work on domestic plumbing and heating systems and components T/502/9157 **Unit Credit Value 12**
- Tightness test, purge, commission and de-commission gas pipework up to 35mm 1¼ diameter in small natural gas installations K/502/8376 **Unit Credit Value 3**
- Install, commission and de-commission gas pipework up to 35mm 1¼ diameter in domestic and small commercial premises T/502/8381 **Unit Credit Value 19**
- Specific core installation and maintenance H/502/8487 **Unit Credit Value 21**
- Install, commission, service and maintain domestic heating systems A/502/8933 **Unit Credit Value 3**
- Maintain gas warm air central heating systems and appliances T/502/8302 **Unit Credit**

**Value 11**

- Install domestic gas warm air central heating appliances F/502/8299 **Unit Credit Value 12**
- Understand and apply domestic cold water system installation, commissioning, service and maintenance techniques K/502/8930 **Unit Credit Value 9**
- Understand and apply domestic hot water system installation, commissioning, service and maintenance techniques K/502/9155 **Unit Credit Value 9**
- Understand and apply domestic central heating system installation, commissioning, service and maintenance techniques M/502/9156 **Unit Credit Value 12**

**Competence Element = 111 credits**

**Total Qualification = 127 credits**

For further qualification details refer to: [register.ofqual.gov.uk/Qualifications](https://register.ofqual.gov.uk/Qualifications) and search by relevant qualification or unit number.

# Transferable skills (Wales)

## Essential skills (Wales)

Subject	Minimum Level
Communication	2
Application of numbers	2
ICT/Digital literacy	N/A

For a full list of available proxies for starts on or after 14th October 2016 please see section 35 of the current [SASW](#).

## Progression routes into and from this pathway

### Progression routes into this pathway:

Applicants may come from a range of routes including:

- Successful completion of a Foundation (Level 2) framework in Domestic Heating
- Successful completion of a Welsh Baccalaureate Intermediate Diploma
- Successful completion of a Welsh Government 'Pathway to Apprenticeship' in Domestic Heating
- Work or work experience
- Training and/or experience which could include a portfolio showing what they have done
- Academic qualification(s) such as three GCSEs grades A-C in each of the following:- a communication subject, maths and either a science or technical-based subject
- Achievement of Essential Skills or Wider KeySkills
- Level 2 GNVQs in relevant vocational/technical subjects
- Completion of a Level 2 'Access to Building Services Engineering' qualification

No individual should be refused access to an initial assessment on the basis of educational qualifications alone. The ultimate responsibility for selection will rest with the individual employer.

### Progression routes out of this pathway:

On successful completion of the Apprenticeship (Level 3) framework in Domestic Heating, an apprentice will have the skills, knowledge and qualifications to:

- Progress to relevant Level 4/5 qualifications e.g. Building Services Engineering Technology & Project Management or Foundation Degree in Engineering

- Progress onto the Level 6 Apprenticeships related to this field such as in Building Services Engineering Technology & Project Management
- Take a relevant Trade Test to demonstrate competence to work in other UK countries
- Progress in their career with further training into such job roles as Technician, Designer, Estimator, Project Manager, Site/Workshop Supervisor/ Manager, Chartered Engineer, Sales Engineer or Commercial Manager

Also whilst this sector doesn't currently have a 'Licence to Practice' our apprenticeships are recognised as fulfilling the competence requirements of the voluntary card schemes and will enable you to register on a relevant industry recognised Certification Scheme which is evidence that an operative is deemed competent to carry out a particular job role effectively and safely.

Further career guidance can be found at: <http://www.summitskills.org.uk/building-services-apprenticeships-careers>

**UCAS points for this pathway: N/A**

# Employee rights and responsibilities

The normal entry into this programme would be through the previous completion of the Foundation (Level 2) framework in Domestic Heating programme into which the ERR elements identified below are integrated and signposted and will be automatically evidenced by the issuing of a qualification achievement certificate (Recognised Prior Learning may therefore be applied if ERR is gained in this way or from another programme)

Alternatively the ERR elements identified below must be achieved through an induction programme, in combination with the Level 3 NVQ Diploma in Domestic Heating (Gas-Fired Warm Air Appliances) qualifications (EAL 600/1453/2, BPEC 600/6287/3 or City & Guilds 600/1116/6) into which they are integrated and signposted. The ERR elements will be evidenced by the issuing of a qualification achievement certificate plus the declaration consent form when claiming for the apprenticeship certificate.

The delivery and assessment of ERR must be designed so that the apprentice:

1. knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well. This should cover the apprentice's rights and responsibilities under the Disability Discrimination Act, other relevant equalities legislation and Health & Safety, together with the responsibilities and duties of employers.
2. knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer. Health & Safety and Equality & Diversity training must be an integral part of the apprentice's learning programme;
3. knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities. Details of Access to Work and Additional Learning Support must be included in the programme
4. understands the role played by their occupation within their organisation and industry;
5. has an informed view of the types of career pathways that are open to them;
6. knows the types of representative bodies and understands their relevance to their industry and organisation, and their main roles and responsibilities
7. knows where and how to get information and advice on their industry, occupation, training and career;
8. can describe and work within their organisations principles and codes of practice;
9. recognises and can form a view on issues of public concern that affect their organisation and industry

# Additional employer requirements

*(No requirement specified)*

## Level 3, Pathway 3: Domestic Heating (Gas-Fired Water & Central Heating appliances)

### Description of this pathway

Domestic Heating (Gas-Fired Water & Central Heating appliances) Installing, servicing, maintaining and commissioning domestic heating systems. Total credits for this pathway = 150

- 138 credits for either combined (Knowledge 16 credits & Competence 122 credits) qualification
- 12 credits for Essential Skills in Communication and Application of Number

Where Recognition of Prior Learning (RPL) is applied in relation to competence, knowledge or Essential Skills, the Apprenticeship programme must be tailored to allow the Apprentice to undertake new learning, including learning at a higher level and developing new skills.

In order to demonstrate the industry recognised level of competence reflected by this Apprenticeship (Level 3) framework it is expected the minimum duration for its completion will be no less than 24 months.

### Entry requirements for this pathway in addition to the framework entry requirements

The Domestic Heating Industry would normally expect entry into this framework to be for those who have already successfully completed a Foundation (Level 2) framework in Domestic Heating and spent time consolidating their roles and practicing their skills. Alternatively it is for those individuals with the experience and knowledge comparable with the requirements of that programme. The structured learning and assessment programme of this framework will enhance the skills and knowledge of the entrant to the benefit of employers and apprentices alike.

Examples of formal qualifications that can be used as an indication that an applicant has the potential to progress into and complete the Apprenticeship (Level 3) framework in Domestic

Heating are:

- Successful completion of a Foundation (Level 2) framework in Domestic Heating
- Welsh Baccalaureate Intermediate Diploma OR
- Completion of a Welsh Government 'Pathway to Apprenticeship' in Domestic Heating OR
- GCSE grade A-C in each of the following:- a communication subject, maths and either a science or technical-based subject OR
- Essential Skills Wales or Key Skills in Communication and Application of Number and IT at Level 2 OR
- Level 2 GNVQs in relevant vocational/technical subjects OR
- A Level 2 'Access to Building Services Engineering' qualification



<b>Job title(s)</b>	<b>Job role(s)</b>
Advanced Domestic Heating Installer (Gas-Fired Water and Central Heating)	Completes, oversees and organises work to install, service, maintain and commission Gas-Fired Water & Central Heating systems and associated components

# Qualifications

## Competence qualifications available to this pathway

N/A

## Knowledge qualifications available to this pathway

N/A

## Combined qualifications available to this pathway

B1 - Level 3 NVQ Diploma in Domestic Heating (Gas Fired Water & Central Heating Appliances) (QCF)						
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value	Total qualification time
B1a	600/1454/4	EAL	138	962	N/A	
B1b	600/1117/8	City & Guilds	138	962	N/A	
B1c	600/6286/1	BPEC	138	962	N/A	

## Relationship between competence and knowledge qualifications

This framework requires the completion of the combined qualifications B1a, B1b or B1c identified in the combined qualifications section B1 above.

Qualification Title - Level 3 NVQ Diploma in Domestic Heating (Gas-Fired Water and Central Heating Appliances), which includes the following units:

### Knowledge Units

- Understand how to organise resources in building services engineering R/602/2498 **Unit Credit Value 3**
- Understand core gas safety principles for natural gas in domestic building services engineering J/502/9390 **Unit Credit Value 13**

**Knowledge Element = 16 credits**

### Competence Units

- Understand and carry out electrical work on domestic plumbing and heating systems and components T/502/9157 **Unit Credit Value 12**
- Tightness test, purge, commission and de-commission gas pipework up to 35mm 1¼ diameter in small natural gas installations K/502/8376 **Unit Credit Value 3**
- Install, commission and de-commission gas pipework up to 35mm 1¼ diameter in domestic and small commercial premises T/502/8381 **Unit Credit Value 19**
- Maintain gas water heating and wet central heating appliances T/502/8459 **Unit Credit Value 16**

- Install domestic gas water heaters and wet central heating appliances Y/502/8454 **Unit Credit Value 18**
- Specific core installation and maintenance H/502/8487 **Unit Credit Value 21**
- Install, commission, service and maintain domestic heating systems A/502/8933 **Unit Credit Value 3**
- Understand and apply domestic cold water system installation, commissioning, service and maintenance techniques K/502/8930 **Unit Credit Value 9**
- Understand and apply domestic hot water system installation, commissioning, service and maintenance techniques K/502/9155 **Unit Credit Value 9**
- Understand and apply domestic central heating system installation, commissioning, service and maintenance techniques M/502/9156 **Unit Credit Value 12**

**Competence Element = 122 credits**

**Total Qualification = 138 credits**

For further qualification details refer to: [register.ofqual.gov.uk/Qualifications](https://register.ofqual.gov.uk/Qualifications) and search by relevant qualification or unit number.

# Transferable skills (Wales)

## Essential skills (Wales)

Subject	Minimum Level
Communication	2
Application of numbers	2
ICT/Digital literacy	N/A

For a full list of available proxies for starts on or after 14th October 2016 please see section 35 of the current [SASW](#).

## Progression routes into and from this pathway

### Progression routes into this pathway:

Applicants may come from a range of routes including:

- Successful completion of a Foundation (Level 2) framework in Domestic Heating
- Successful completion of a Welsh Baccalaureate Intermediate Diploma
- Successful completion of a Welsh Government 'Pathway to Apprenticeship' in Domestic Heating
- Work or work experience
- Training and/or experience which could include a portfolio showing what they have done
- Academic qualification(s) such as three GCSEs grades A-C in each of the following:- a communication subject, maths and either a science or technical-based subject
- Achievement of Essential Skills or Wider KeySkills
- Level 2 GNVQs in relevant vocational/technical subjects
- Completion of a Level 2 'Access to Building Services Engineering' qualification

No individual should be refused access to an initial assessment on the basis of educational qualifications alone. The ultimate responsibility for selection will rest with the individual employer.

### Progression routes out of this pathway:

On successful completion of the Apprenticeship (Level 3) framework in Domestic Heating, an apprentice will have the skills, knowledge and qualifications to:

- Progress to relevant Level 4/5 qualifications e.g. Building Services Engineering Technology & Project Management or Foundation Degree in Engineering

- Progress onto the Level 6 Apprenticeships related to this field such as in Building Services Engineering Technology & Project Management
- Take a relevant Trade Test to demonstrate competence to work in other UK countries
- Progress in their career with further training into such job roles as Technician, Designer, Estimator, Project Manager, Site/Workshop Supervisor/ Manager, Chartered Engineer, Sales Engineer or Commercial Manager

Also whilst this sector doesn't currently have a 'Licence to Practice' our apprenticeships are recognised as fulfilling the competence requirements of the voluntary card schemes and will enable you to register on a relevant industry recognised Certification Scheme which is evidence that an operative is deemed competent to carry out a particular job role effectively and safely.

Further career guidance can be found at: <http://www.summitskills.org.uk/building-services-apprenticeships-careers>

**UCAS points for this pathway: N/A**

# Employee rights and responsibilities

The normal entry into this programme would be through the previous completion of the Foundation (Level 2) framework in Domestic Heating programme into which the ERR elements identified below are integrated and signposted. The ERR elements will be evidenced by the issuing of a qualification achievement certificate. Recognition of Prior Learning (RPL) may therefore be applied if ERR is gained in this way or from another programme.

Alternatively the ERR elements identified below must be achieved through an induction programme, in combination with the Level 3 NVQ Diploma in Domestic Heating (Gas Fired Water and Central Heating Appliances) qualifications EAL (600/1454/4), BPEC (600/6286/1) or City & Guilds (600/1117/8) into which they are integrated and signposted. The ERR elements will be evidenced by the issuing of a qualification achievement certificate plus the declaration consent form when claiming for the apprenticeship certificate.

The delivery and assessment of ERR must be designed so that the apprentice:

1. knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law and that employment rights can be affected by other legislation as well. This should cover the apprentice's rights and responsibilities under the Disability Discrimination Act, other relevant equalities legislation and Health & Safety, together with the responsibilities and duties of employers.
2. knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer. Health & Safety and Equality & Diversity training must be an integral part of the apprentice's learning programme;
3. knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities. Details of Access to Work and Additional Learning Support must be included in the programme
4. understands the role played by their occupation within their organisation and industry;
5. has an informed view of the types of career pathways that are open to them;
6. knows the types of representative bodies and understands their relevance to their industry and organisation, and their main roles and responsibilities
7. knows where and how to get information and advice on their industry, occupation, training and career;
8. can describe and work within their organisations principles and codes of practice;
9. recognises and can form a view on issues of public concern that affect their organisation and industry

# Additional employer requirements

*(No requirement specified)*



*The remaining sections apply to all levels and pathways within this framework.*

## How equality and diversity will be met

The nature of the work means that the Domestic Heating Industry is not a traditional career choice for women, but women do qualify and work successfully in the industry and this is encouraged. We are continuing to work with the UK Resource Centre for Women in Science, Engineering and Technology and the Young Woman's Trust to promote the opportunities for women working within the building services engineering sector.

SummitSkills will have overall responsibility for the development and review of the framework and for monitoring equality of opportunity, primarily by the analysis of the National Apprenticeship Service data.

There should be open recruitment of apprentices who meet the selection criteria, regardless of gender, ethnic origin, religion/belief, sexual orientation or disability .

All partners involved in the delivery of the apprenticeship and employers must be committed to a policy of equal opportunities and must have a formal equal opportunities policy and procedure in place. Employers/providers must be able to demonstrate that there are no overt or covert discriminatory practices in selection and employment. All promotional, selection and training activities must comply with relevant legislation such as the Equality Act 2010.

<http://www.equalityhumanrights.com/advice-and-guidance/new-equality-act-guidance/>

Providers will monitor equality of opportunity practice and procedures within their own organisation and take positive action when necessary. It is also recommended that employers/providers conduct an exit interview if the apprentice leaves the programme before completion.

# On and off the job training (Wales)

## Summary of on- and off-the-job training

The following shows a breakdown of Training hours for each framework and pathway:

### ***Overview of Foundation (Level 2) in Domestic Heating***

Qualification Total - 522 hrs (Knowledge elements 132hrs + Competence elements 390hrs)

Essential Skills (ES) - 135 hrs (notional value of 45 hrs per ES x 3, which can be offset if previously completed)

Mentoring - 92 hrs (based on 46 wks x 2hrs)

Total number of Training hours for this pathway - 749 hrs

### ***Overview of Apprenticeship (Level 3) in Domestic Heating***

There are three pathways apprentices can choose from, each of which may or may not have options for study within them:

1. Domestic Heating (Oil-Fired, Solid Fuel or Environmental options)
2. Domestic Heating (Gas-Fired Warm Air Appliances)
3. Domestic Heating (Gas-Fired Water and Central Heating Appliances)

## ***1. Domestic Heating***

### **a) Domestic Oil-Fired Systems Option**

Qualification Total - 566 Training Hours (Knowledge elements 196hrs + Competence 370hrs)

Essential Skills (ES) - 90 hrs (notional value of 45hrs per ES x 2, which can be offset if previously completed)

Mentoring - 184 hrs (based on 92 wks x 2hrs)

Minimum Total Training Hours for this pathway - 840 hrs

### **b) Solid Fuel Systems Option**

#### ***(i) Domestic Solid Fuel Mineral Fuel Appliances***

Qualification Total - 566 Training hours (Knowledge elements 196hrs + Competence elements

370hrs)

Essential Skills (ES) - 90 hrs (notional value of 45 hrs per ES x 2, which can be offset if previously completed)

Mentoring - 184 hrs (based on 92 wks x 2hrs)

Minimum Total Training hours for this pathway is 840 hrs

*(ii) Domestic Biomass Fuel Burning Appliances*

Qualification Total - 587 Training hours (Knowledge elements 218hrs + Competence elements 369hrs)

Essential Skills (ES) - 90 hrs (notional value of 45 hrs per ES x 2, which can be offset if previously completed)

Mentoring - 184 hrs (based on 92 wks x 2hrs)

Minimum Total Training hours for this pathway is 861 hrs

**c) Environmental Technology Systems Option**

Qualification Total - 477 Training hours (Knowledge elements 91hrs + Competence elements 386hrs)

Essential Skills (ES) - 90 hrs (notional value of 45 hrs per ES x 2, which can be offset if previously completed)

Mentoring - 184 hrs (based on 92 wks x 2hrs)

Minimum Total Training hours for this pathway is 751 hrs

**2. Domestic Heating (Gas-Fired Warm Air Appliances)**

Qualification Total - 861 hrs (Knowledge elements 146hrs + Competence elements 715hrs)

Essential Skills (ES) - 90 hrs (notional value of 45 hrs per ES x 2, which can be offset if previously completed)

Mentoring - 184 hrs (based on 92 wks x 2hrs)

Minimum Total Training hours for this pathway - 1135 hrs

**3. Domestic Heating (Gas-Fired Water and Central Heating Appliances)**

Qualification Total - 962 hrs

Essential Skills (ES) - 90 hrs (notional value of 45 hrs per ES x 2, which can be offset if

previously completed)

Mentoring - 184 hrs (based on 92 wks x 2hrs)

Minimum Total Training hours for this pathway - 1236 hrs

In addition to these hours we would encourage further practice take place in the work place.

Apprenticeships should normally require employment of at least 30 hrs per week as part of their Apprenticeship Agreement.

All training hours must be delivered during contracted working hours under an Apprenticeship Agreement or during a period less than 5 years before the date of application for an Apprenticeship certificate.

Training Hours:

- must be planned, reviewed and evaluated jointly between the apprentice and tutor, teacher, mentor or manager
- must allow access as and when required by the apprentice either to a tutor, teacher, mentor or manager
- must be delivered through one or more of the following methods: individual and group teaching, e-learning, distance learning, coaching, mentoring; feedback and assessment; collaborative/networked learning with peers; guided study

The framework delivery:

- must be planned to make full and effective use of the duration, including the opportunity for apprentices to embed and extend their learning through repeated workplace practice
- some of the Training Hours may be offset through Recognition of Prior Learning (RPL) of suitable qualifications and demonstrable experience gained within 5 years of apprenticeship certificate application
- a completed Training Hours checklist signed by the assessor and apprentice must be provided as evidence that on and off the job hour requirements have been met and is available on SummitSkills website at:  
<http://www.summitskills.org.uk/Apprenticeships/Certification-and-Registration/219>

## Off-the-job training

### ***Foundation (Level 2)***

**Domestic Heating** - minimum total off-the-job Training hours is 565 hrs over 24 months

- Yr 1 - 283 hrs
- Yr 2 - 282 hrs

## **Apprenticeship (Level 3)**

### **1. Domestic Heating (Oil-Fired, Solid Fuel or Environmental options)**

#### **a) Domestic Oil-Fired Systems**

Minimum total off-the-job Training Hours is 656hrs over 24 months

- Yr 1 - 328 hrs GLH
- Yr 2 - 328 hrs GLH

#### **b) Solid Fuel Systems**

##### *(i) Domestic Solid Mineral Fuel Appliances*

Minimum total off-the-job Training hours is 656hrs over 24 months

- Yr 1 - 328 hrs
- Yr 2 - 328 hrs

##### *(ii) Domestic Biomass Fuel Burning Appliances*

Minimum total off-the-job Training hours is 677hrs over 24 months

- Yr 1 - 339 hrs
- Yr 2 - 338 hrs

#### **c) Environmental Technology Systems**

Minimum total off-the-job Training hours is 656hrs over 24 months

- Yr 1 - 328 hrs
- Yr 2 - 328 hrs

### **2. Domestic Heating (Gas-Fired Warm Air Appliances)**

Minimum total off-the-job Training hours is 996 hrs over 24 months

- Yr 1 - 498 hrs
- Yr 2 - 498 hrs

### **3. Domestic Heating (Gas-Fired Water and Central Heating Appliances)**

Minimum total off-the-job Training hours is 1052 hrs over 24 months

- Yr 1 - 526 hrs
- Yr 2 - 526 hrs

## How this requirement will be met

Training Hours will be achieved through clear and specific outcomes which contribute directly to the successful completion of the framework, and these may include accredited and non-accredited elements.

Training hours will be delivered through one or more of the following methods: individual and group teaching; e-learning; distance learning; feedback and assessment; guided study.

All Training hours delivery will take place during contracted working hours and while working under an Apprenticeship Agreement. Off the job training hours will be away from the immediate pressures of the workplace eg day release, block release, web based learning, mentoring etc

This will be recorded and evidenced by training provider attendance statistics, assessment reports and apprentice diary/portfolio.

## On-the-job training

### ***Foundation (Level 2) framework***

**Domestic Heating** - minimum total on-the-job Training hours is 184 hrs over 24 months

- Yr 1 - 92 hrs
- Yr 2 - 92 hrs

### ***Apprenticeship (Level 3) framework***

**1. Domestic Heating (Oil-Fired, Solid Fuel or Environmental Options)** - minimum total on-the-job Training hours is 184 hrs

- Yr 1 - 92 hrs
- Yr 2 - 92 hrs

**2. Domestic Heating (Gas-Fired Warm Air Appliances)** - minimum total on-the-job Training hours is 184 hrs

- Yr 1 - 92 hrs
- Yr 2 - 92 hrs

**3. Domestic Heating (Gas-Fired Water and Central Heating Appliances)** - minimum total on-the-job Training hours is 184 hrs

- Yr 1 - 92 hrs
- Yr 2 - 92 hrs

This is the minimum number of Training hours that should be allocated for the apprentice to gather evidence in accordance with the requirements of the integrated qualification and mentoring.

### **How this requirement will be met**

Training Hours will be achieved through clear and specific outcomes which contribute directly to the successful completion of the framework and these may include accredited and non-accredited elements of the framework.

Training Hours will be delivered through one or more of the following methods: individual and group teaching; e-learning; distance learning; coaching, mentoring; feedback and assessment; collaborative/networked learning with peers; guided study.

All Training Hours delivery to take place during contracted working hours & whilst working under an Apprenticeship Agreement.

On the job Training Hours must be recorded eg in a diary/portfolio checked by an assessor, logs of peer review discussions, performance reviews etc

This will be evidenced by apprentices portfolio, employer dialogue, qualification assessment records and reports.

# Essential employability skills (Wales)

## Essential employability skills

*(No requirement specified)*



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apprenticeship  
FRAMEWORKS ONLINE

For more information visit  
[www.afo.sscalliance.org](http://www.afo.sscalliance.org)