

Apprenticeship standard (England only)

Plumbing and Domestic Heating Technician

Industry: Building Services

City & Guilds code: 9189



-  **Typical duration: 48 months**
-  **Funding band: 13 (£21,000)***
-  **Level 3**

*Funding bands from May 2017

On-programme learning: Available

On-programme mandatory qualification: 9189

End-point assessment (EPA): We're on the register of end-point assessment organisations

The Plumbing and Domestic Heating apprenticeship is part of the City & Guild apprenticeship offer in Building Services. Plumbing and Domestic Heating Technicians plan, select, install, service, commission and maintain all aspects of plumbing and heating systems. Plumbing and domestic heating technicians can find themselves working in commercial or domestic properties so customer service skills are important qualities.

The occupation involves the installation of plumbing and heating systems, such as gas, oil and solid fuel boilers as well as pumps, heat emitters, bathroom furniture or controls as part of a cold water, hot water, and central heating or above ground drainage and rainwater systems. It also involves work on new environmental technologies like heat pumps, solar thermal systems, biomass boilers and water recycling systems. Plumbing and heating technicians can work independently or as a team to ensure that both the system and appliances are replaced in a safe, efficient and economical manner to minimise waste. On completion of this apprenticeship, candidates will be able to carry out all the activities undertaken by a Plumber.

City & Guilds – helping you with an expert solution

There are four stages where we can work together to help your apprentices from the start through to successful completion of their training.



Plan

Helping you plan and prepare for the new standards with a bespoke solution to make the most of your investment in apprentices.



Attract

Simple online vacancy and candidate set up, TalentPortal can connect you to the talent you need to fill your apprenticeship vacancies.



Deliver

High-quality, online and offline content to help draw out the skills, knowledge and behaviours to prepare apprentices for end-point assessment as well as tracking options to monitor performance.



Assess

Support for you and your apprentices to prepare for end-point assessment by our first-rate, fully trained assessors. Our simple, flexible service meets the demands of your team and your partners.

The City & Guilds Plumbing and Domestic Heating Technician apprenticeship

The apprentice journey



1 On-programme (deliver)

Training and development takes place during this part of the apprenticeship. It may include a qualification if set in the standard.

Formative assessment of skills, knowledge and behaviours is required in the delivery of the standard and this will be outlined in the assessment plan.

Apprentices have to reach a minimum level of maths and English set by the standard. If they've not previously achieved this, they'll need further study and support.

1 On-programme: what apprentices need to learn

Apprentices need to complete 20% off-the-job training during on-programme and specific rules govern this vital element. You can track and authorise the 20% through our e-portfolio, Learning Assistant. Apprentices need to know:

Knowledge

- health and safety
- core plumbing systems
- electrical components and control systems
- plumbing science and processes
- principles of environmental technology systems
- principles of fossil fuels
- customer service
- communication.

Behaviours/attitudes

- honesty and integrity
- dependable and responsible
- enthusiasm and positive attitude
- quality focus
- willingness to learn
- work with others
- sustainable working.

Skills

- safe working
- core plumbing system techniques
- electrical components and control systems techniques
- supervisory skills.

Options

- fossil fuel natural gas
- fossil fuel oil
- fossil fuel – solid fuel
- environmental technologies

Our resources and tools that support on-programme delivery

Our core content for this standard covers Prevent, British values, equality and diversity, and health and safety which give you the basics to deliver the standard and satisfy regulators. It's a blend of e-learning and downloadable content. We also have:



Mandatory Qualification

The core units of the City & Guilds Level 3 Plumbing and Domestic Heating (9189) are closely aligned to the content of the apprenticeship standard and enhance the on-programme experience for the apprentice and employer.



Task Manual

Available in print and as part of our e-portfolio, the customer service task manual guides learners through step-by-step tasks that develop the skills, knowledge and behaviours required.



Learning Assistant (e-portfolio)

Learning Assistant is an innovative and cost effective e-portfolio solution that allows colleges and training providers to improve dramatically the delivery of their vocational qualifications by tracking progress in real time online.



Enhanced SmartScreen

Virtual learning – engaging and interactive e-learning modules allow apprentices to work at their own pace. The content covers majority of modules, preparing apprentices for their end-point assessment. Tutors can track activity and results.



Guidance Documents

- Guidance for apprentices and training providers to help prepare apprentice for their end-point assessment will be available.
- Qualification handbook if applicable.

Maths and English requirements

If your apprentices need to complete maths and English, our popular Functional Skills qualifications fit within apprenticeship programmes and cover the core maths and English requirement for the workplace and further study. We have an extensive support package available, including e-Functional Skills, and an online teaching and learning platform, which guides learners from an initial and a diagnostic assessment, through to being exam ready.

Find out more: [cityandguilds.com/functionalskills](https://www.cityandguilds.com/functionalskills)

The City & Guilds Plumbing and Domestic Heating Technician apprenticeship



2 Gateway

The employer and provider must sign off the apprentice as ready to move on to end-point assessment.



3 Assess

The end-point assessment must demonstrate that the apprentice can perform in the occupation in a fully competent, holistic and productive way.

The assessment will be graded if required by the standard.

The assessment organisation and assessor must be independent of, and separate from, the training provided by the provider and employer.



4 Apprenticeship certificate

On successful completion, the end-point assessment organisation will apply to the Education and Skills Funding Agency (ESFA) for the apprenticeship certificate. The certificate is sent to the apprentice's employer.

2 Gateway

To move on to end-point assessment (EPA), the apprentice must show evidence of the relevant knowledge, skills and behaviours as set out in the standard and have achieved maths and English (Level 1) and taken the test for Level 2.

3 End-point assessment (EPA): how apprentices demonstrate their learning

End-point assessment is the final stage that an apprentice goes through to complete their apprenticeship. The apprentice must demonstrate their learning to an independent end-point assessor and the grades available are distinction, merit, pass or fail. Assessment methods for this standard are:



Multiple Choice Test

This is made of 50 questions, multiple choice, centrally set and marked. The knowledge areas will be selected from an assessment bank that covers the full knowledge range.

The test lasts 90 minutes.



Design Project

This is held at an assessment centre but externally set and marked. Building plans are provided to the apprentice with a job specification, manufacturer's information and data, British Standards and regulations. The apprentice is asked to complete a heating, hot water and cold water design capable of meeting the job specification.

Duration: Seven hours.



Practical installation test

(underpinning skills assessment)

Apprentices complete the fabrication of a pipework frame, utilising different materials and pipework components with various jointing techniques.

Duration: Maximum of six hours.



Practical application test

(applied skills assessment)

The apprentice will inspect a pre-installed unvented cylinder, functioning with electrical components and controls. The assessor will create faults on various components within the system. The apprentice is given 2 hours to identify the faults, repair them and then re-commission the system. The apprentice will complete a service according to manufacturer's instructions, this will be undertaken within one hour.

Duration: Maximum of 3 hours.



Professional discussion

Optional pathways and behaviours will be assessed through the professional discussion and supported by the production of a workplace logbook completed by the apprentice during the end-point assessment period. This should be a maximum of 30 minutes.

Our resources and tools that support end-point assessment

We're applying to be on the register of end-point assessment organisations and our EPA service includes support resource as well as flexibility around assessment delivery and a dedicated EPA team to support you.



EPA preparation tool

Online content to help the apprentice feel ready for their EPA experience. Personalised to their confidence levels and the standard, they're sent free access details once they're registered with us for EPA.



EPA team

Our dedicated EPA team is on hand to help with bookings and questions on anything from the assessment process to evidence portfolios.



EPA pack and guidance

Let our support, including short videos and how to guides help you get to grips and stay on track with the EPA process.



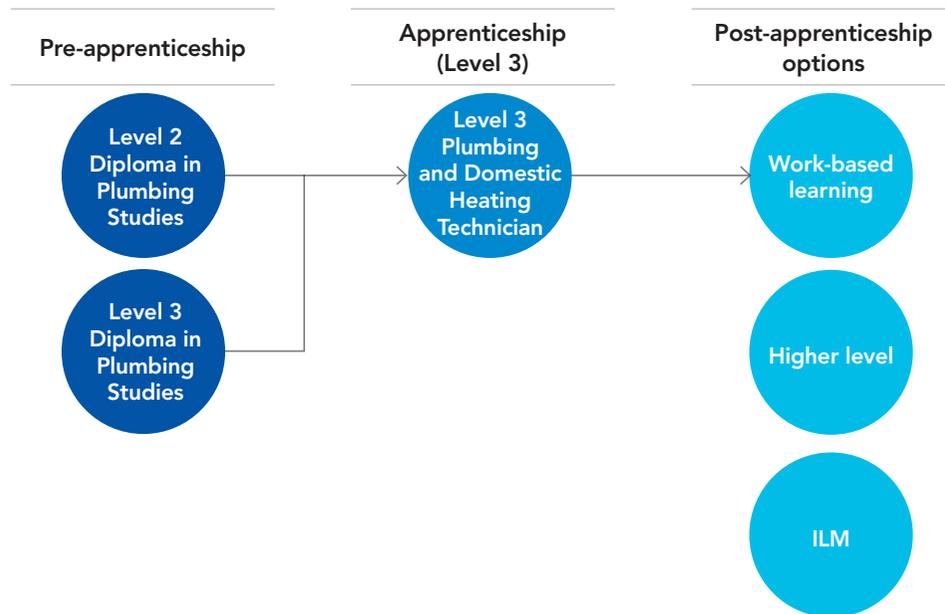
4 Apprenticeship certification

The apprentice will receive their Institute for Apprenticeships (IfA) apprenticeship certificate. Apprentices that complete a City & Guilds EPA will receive a City & Guilds statement of achievement for end-point assessment.

The City & Guilds Plumbing and Domestic Heating Technician apprenticeship

Progression in the building services industry with City & Guilds Group

This apprenticeship is part of our wider offering in the building services sector. We provide the following apprenticeship opportunities.



This apprenticeship standard was developed to meet the needs of employers and designed with input from an employer group including: Seddon Construction Ltd, Millside Heating Services Ltd, Parker Bromely Ltd, E C Merrett Ltd, Arthur Padgett Ltd, Coulson Building Group, Gasway, Leaks and Locks, Andrew Crookes Plumbing & Heating and Mitie.

How our offer supports you:

Supportive payment structure

When you choose us for EPA you pay a small registration fee and the balance once the EPA has taken place and results submitted.

Personal support

Our Technical Advisors, Business Managers and Customer Service teams are on hand to help you with all aspects of apprenticeships.

Specialist online tools

Our e-Functional Skills can boost maths and English; Skills Zone develops workplace behaviours and skills; and our e-portfolio, Learning Assistant, lets you manage assignments and track the 20% off-the-job training requirement.

Events and webinars

We deliver a range of events and webinars run by industry specialists to advise and guide you, including regional networking and CPD events.



More information

If you're a City & Guilds centre, visit Walled Garden or contact your Business Manager to find out prices and if any elements are extra to the package. If you're a new customer, contact apprenticeships@cityandguilds.com to find out more.

Or visit cityandguilds.com/apprenticeships for full information on our apprenticeship products and services. Visit i-l-m.com/apprentice for information on management apprenticeships.