



Skills England

Draft Preview

DRAFT APPRENTICESHIP ASSESSMENT PLAN FOR THE ADVANCED PLUMBING AND HEATING ENGINEER APPRENTICESHIP

ST1463/V2

APPRENTICESHIP REFERENCE NUMBER	LEVEL OF THIS APPRENTICESHIP	INTEGRATION
ST1463	3	Mandatory qualification with apprenticeship assessment

Assessment Plan

Assessment details

Introduction

This Apprenticeship Assessment Plan (AAP) sets out the requirements for the assessment of the level 3 advanced plumbing and heating engineer apprenticeship. It should be read in conjunction with the General Requirements for Apprenticeship Assessment. Where there is conflict between this AAP and the General Requirements, this AAP takes precedence. Assessment organisations must also comply with the relevant regulatory framework for apprenticeship assessment.

It is important that the assessment of apprentices is proportionate, valid, and provides reliable evidence of an apprentice's attainment of the relevant knowledge and skills. As such, apprenticeship assessment must ensure:

- employers have confidence that the apprentice has reached the expected performance standard
- apprentices are sufficiently secure in their knowledge and skills, so that they could demonstrate their competence in different contexts, for example, a different workplace

Mandatory qualification

The qualification detailed in the occupational standard must be achieved before the end of the apprenticeship.

Any qualification mandated within the occupational standard must assess the apprentice to full occupational competence in the knowledge and skills it covers, to meet the purpose of an apprenticeship.

The qualification or qualifications assess the knowledge and skills statements that are not referenced in the mapping column of the assessment outcome table below.

Assessment outcomes

The assessment outcomes group and summarise the knowledge and skills that must be demonstrated in assessments. All assessment outcomes must be assessed.

The assessment outcomes have been created to summarise the content that is not fully assessed by the qualification or qualifications mandated in the occupational standard. The qualification or qualifications assess the knowledge and skills statements that are not mapped here.

Knowledge and skills statements in **bold** are mandatory and must be assessed in every version of the assessment that is made available.

Knowledge and skills statements which offer opportunities to develop functional English and maths are identified with an asterisk (*).

Assessment Outcome	Mapping
AO1: Health, Safety and Regulatory Compliance Applies safe working practices when undertaking low temperature hot water heating activities, including the selection and use of PPE and working within the limits of own authority. Uses relevant legislation, regulations, industry standards, codes of practice and manufacturer instructions to undertake work safely and escalates tasks or issues when required.	K3, K8, K14 S3, S7, S11
AO2: Low Temperature Hot Water Heating System Design and Preparation Uses design principles, calculations and system requirements to develop low temperature hot water heating solutions. Undertakes preparation and pre-installation activities, including the selection of suitable equipment, cables, components and system arrangements to support installation and system performance requirements.	K17*, K26 S14* S22
AO3: Low Temperature Hot Water Heating System Installation and Controls Installs low temperature hot water heating systems and associated components. Selects, installs and sets system controls to support effective operation, energy performance and user requirements.	K22*, K23 S18*, S19
AO4: Electrical Systems and Components Applies safe isolation procedures and undertakes the installation, testing and decommissioning of electrical systems and components associated with low temperature hot water heating systems. Diagnoses electrical faults and defects and applies fault-finding techniques to restore system operation.	K25, K28*, K41 S21, S24*, S36
AO5: Commissioning, Operation and System Fault Rectification Commissions low temperature hot water heating systems through filling, venting, testing, balancing and performance verification activities. Operates and hands over systems to end users and diagnoses and rectifies system faults and component failures to maintain system performance and functionality	K33*, K36*, K38* S28*, S31*, S33*

Assessment requirements

Assessment organisations must set apprenticeship assessments. Assessment organisations should consider how technology and digital tools can support innovation and efficiency.

Assessment organisations must design apprenticeship assessments to include at least one **observation** or **simulation**.

Any additional assessment, or assessments, must be selected from the following list of methods, to ensure the assessment outcomes are met in full. Assessments available in the list may be used more than once:

- **additional observation**
- **additional simulation**
- **question and answer**
- **portfolio**
- **written assessment**

Apprentices may be assessed at any appropriate point during their apprenticeship programme.

Assessment organisations must design apprenticeship assessments that is delivered and assessed by the assessment organisation.

The assessment organisation must have due regard to all relevant frameworks, standards, and industry-recognised practices and guidance published by regulators, professional bodies, Sector Representative Organisations (SROs) and Standard Setting Bodies (SSBs) in designing the mandatory qualification.

This assessment plan will be updated to specify the title, version and date of the Industry Competence Steering Group (ICSG) competence frameworks once published and awarding organisations are required to fully align with the competence frameworks once they have been included in this assessment plan.

Assessment organisations must design apprenticeship assessment that fully aligns with the CSCS alliance member card scheme requirements, insofar as they relate to assessment of the knowledge and skills within the apprenticeship-occupational-standard, such that the apprentice may use attainment of the apprenticeship assessment to support an application for the JIB-PMES Plumber Gold card.

Performance descriptors

Performance descriptors describe the level of performance required to achieve a pass or distinction grade. Assessment organisations must design assessments that align with these descriptions.

Performance Category	Pass	Distinction
Applied Knowledge	Applies sound application of factual, procedural, and theoretical advanced plumbing and heating engineering knowledge in a broad range of varied work activities, performed in a variety of contexts, most of which are complex and non-routine.	Applies thorough application of factual, procedural, and theoretical advanced plumbing and heating engineering knowledge in a broad range of varied work activities, performed in a variety of contexts, most of which are complex and non-routine.
Applied Skills	Selects and applies advanced plumbing and heating engineering skills, methods, and procedures consistently in a broad range of varied work activities and a variety of contexts, most of which are complex and non-routine. Solves well defined problems, which may be complex and non-routine, with sound judgement.	Integrates using advanced plumbing and heating engineering skills, methods, and procedures proactively and resourcefully in a broad range of varied work activities and a variety of contexts, most of which are complex and non-routine. Solves well defined problems, which may be complex and non-routine, that improve outcomes.
Regulatory and Procedural Awareness	Interprets and evaluates legislation, regulation, and guidance relevant to the role, with minimal noncritical errors, and with some depth of insight and adaptability.	Applies evaluation legislation, regulation, and guidance relevant to the role, with minimal noncritical errors, and with greater depth of insight and adaptability.
Communication and Collaboration	Participates effectively in team environments and applies effective communication approaches, supporting daily operations.	Communicates clearly and confidently in team environments, adapting communication approaches, supporting effective daily operations.
Information Use and Decision Making	Interprets and evaluates relevant advanced plumbing and heating engineering information from a variety of sources, supporting	Applies evaluation of advanced plumbing and heating engineering information from a variety of sources, relevant to the role,

	decisions and actions with sound judgement.	with insight, supporting conclusions that improve outcomes.
Responsibility and Autonomy	Takes responsibility for initiating and completing advanced plumbing and heating engineering tasks and procedures including, where relevant, taking responsibility for supervising or guiding others. Exercises responsibility, autonomy and judgement within limited parameters.	Takes responsibility for initiating and completing advanced plumbing and heating engineering tasks and procedures with confident autonomy and sound judgement within limited parameters. Proactively manages own work, confidently, recognising when to refer issues beyond their responsibility.

Professional recognition

This apprenticeship aligns with the requirements for professional body recognition as detailed in the occupational standard.

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