



ENERGY &  
ENVIRONMENT  
AWARDS

EEA Level 3 End-point Assessment for Plumbing and  
Domestic Heating Technician

## **Apprentice Guide**

QAN 610/6015/X  
ST0303 V1.2

# Apprentice Guide for

## EEA Level 3 End-point Assessment for Plumbing and Domestic Heating Technician (PDHT) V1.2 Option 1: Domestic Gas Fired Hot Water Heating Appliances Technician

**QAN 610/6015/X**

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## Updates to this Guide

Since the first publication of Energy & Environment Awards (EEA) for Plumbing and Domestic Heating Technician Apprentice Guide V1.2 (PDHT) – Option 1: Domestic Gas Fired Hot Water Heating Appliances Technician, the following updates have been made.

Version	Date first published	Section updated	Page(s)
v1.0	December 2025	First published	All

## How Your End-point Assessment Will Be Delivered

Your End-point Assessment (EPA) is made up of several parts. Some parts will be delivered by Energy & Environment Awards (that's us), and some parts must be delivered by an approved ACS awarding organisation. It is the responsibility of your employer or training provider to arrange the parts delivered by the ACS awarding organisation. Here's how it works:

### What Energy and Environment Awards will deliver

- **EEA knowledge test**  
This test checks your core plumbing and domestic heating knowledge. It is a multiple-choice test and will be delivered by Energy & Environment Awards.
- **EEA practical planning test**  
You will complete a written planning exercise to show how you would plan an installation or service job. This will also be delivered by Energy & Environment Awards.
- **EEA practical**  
You will carry out practical tasks to demonstrate your skills in installation, service, and maintenance. Energy & Environment Awards will deliver these tasks.
- **EEA interview underpinned by your portfolio**  
You will have a structured discussion based on your EPA portfolio of evidence. This will be delivered by Energy & Environment Awards.

## What the Approved ACS Awarding Organisation will deliver

- **ACS knowledge test**  
This test covers specialist knowledge and must be delivered by an approved ACS awarding organisation. Energy & Environment Awards do not deliver this test.
- **ACS practical**  
This specialist task must also be delivered by an approved ACS awarding organisation.



### At A Glance Component 1: EEA knowledge test

Date(s):	
Time:	
Location:	
Examination Conditions:	Controlled by an invigilator
Additional Requirements:	
Assessed and marked by:	Energy & Environment Awards

### At A Glance Component 2: EEA practical planning test

Date(s):	
Time:	
Location:	
Examination Conditions:	Controlled by an invigilator
Additional Requirements:	
Assessed and marked by:	Independent assessor/Energy & Environment Awards



### At A Glance Component 3: EEA practical

Date(s):	
Time:	
Location:	
Examination Conditions:	With an Energy & Environment Awards Independent assessor at your employer's premises or a suitable venue for example a training provider's premises.
Additional Requirements:	
Assessed and marked by:	Independent assessor/Energy & Environment Awards



#### At A Glance Component 4: EEA interview based on an EPA portfolio

Date(s):	
Time:	
Location:	
Examination Conditions:	With an Independent assessor, usually on-screen using MS teams. You must be at your employer's premises or a suitable venue for example training provider's premises.
Additional Requirements:	An EPA portfolio of evidence must be submitted to Energy & Environment Awards by your employer or training provider
Assessed and marked by:	Independent assessor/Energy & Environment Awards



At A Glance Component 5: ACS knowledge test - **Important:** ACS test will be scheduled and delivered by an approved ACS awarding organisation. Please check with your employer or training provider for details.

Date(s):	
Time:	
Location:	
Examination Conditions:	Controlled by an invigilator
Additional Requirements:	
Assessed and marked by:	Approved ACS Awarding Organisation



#### At A Glance Component 6: ACS practical

Date(s):	
Time:	
Location:	
Examination Conditions:	Controlled by an invigilator
Additional Requirements:	
Assessed and marked by:	Approved ACS Awarding Organisation

## Introduction



Energy & Environment Awards (EEA) has been selected by your employer to carry out end-point assessment (EPA) and it is our job to ensure that you are assessed fairly.

## How This Apprentice Guide Is Organised

✓ Section 1:

What is in the Apprentice Guide?

✓ Section 2:

An Apprentice's End-point Assessment Journey

✓ Section 3:

End-point Assessment Components

## How to Use This Guide



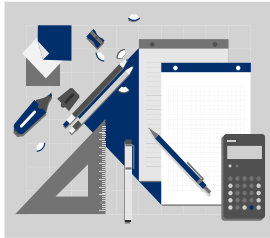
This guide has been split into 3 sections. You can dip into each section that you are working on where you will find useful information, practical advice, tips you need and useful dates to successfully complete your EPA.

Throughout we have used headings and cross referenced to our EPA Level 3 Plumbing and Domestic Heating Technician (PDHT) V1.2 Option 1: Domestic Gas Fired Hot water Heating Appliances Technician Specification which provides details of the EPA components.



## Section 1: The Basics

### What is an Apprenticeship Standard?



An apprenticeship standard is a description of your apprenticeship and it is based on the Plumbing and Domestic Heating Technician Standard, which was written by employers. It contains the plumbing and domestic heating technician's job profile, and describes the knowledge, skills and behaviours (KSBs):

- Knowledge: (as part of KSBs) – specific information, technical detail, and 'know-how' identified as part of the apprenticeship standard that must be evidenced during your end-point assessment
- Skills: (as part of KSBs) – the practical application of knowledge identified as part of the apprenticeship standard that must be evidenced during end-point assessment
- Behaviours (as part of KSBs) – specific mindsets, attitudes or approaches identified as part of the apprenticeship standard that must be evidenced during end-point assessment

The standard can be accessed via the link below:

<https://skillsengland.education.gov.uk/apprenticeships/st0303-v1-2>

### What is an Assessment Plan?

An Assessment Plan is also written by employers and provides details of what is required for you to pass your end-point assessment. It includes details of what you will be assessed on, how each assessment will take place, what methods will be used and who will assess you.

Energy & Environment Awards designed the end-point assessment (EPA) to meet the requirements of the Assessment Plan. The Assessment Plan can be accessed via the link below:

[https://skillsengland.education.gov.uk/media/tm0oky4o/st0303-plumbing-v12\\_for-publication-16\\_7\\_25.pdf](https://skillsengland.education.gov.uk/media/tm0oky4o/st0303-plumbing-v12_for-publication-16_7_25.pdf)

## What is an end-point assessment (EPA)?

The end-point assessment is the assessments you take at the end of your apprenticeship. You will typically spend 48 months on-programme working towards your standard. After this you have a Gateway meeting with your employer or training provider to confirm you are ready for the end-point assessments. The words end-point means that you will be assessed at the end of your on-programme (training) to confirm you have met the standard. Your EPA will be taken in the last 6 months.

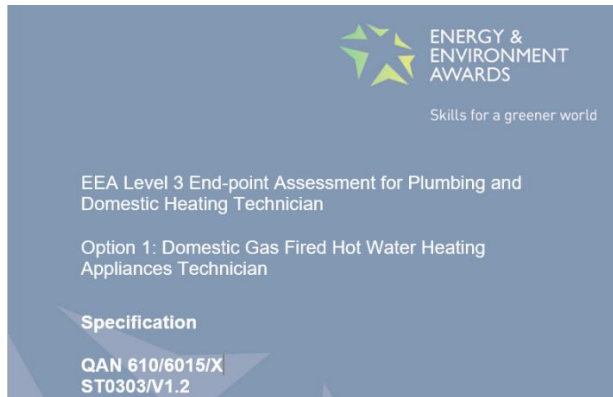
## What are the Gateway Requirements?

Gateway is a meeting where your employer, training provider and you ensure that you are confident that you can demonstrate all the KSBs defined in the apprenticeship standard and you are ready for EPA. After the meeting, your training provider will confirm the outcomes of the Gateway meeting by sending a signed document to Energy & Environment Awards. The document confirms that you have met the following Gateway requirements:

- you have completed all your on-programme learning
- your employer must confirm that you are competent and ready for EPA
- you have achieved English and mathematics qualifications in line with the apprenticeship funding rules
- passed the Level 3 Diploma in Plumbing and Domestic Heating
- If you are taking the gas option 1, you have achieved CCN1 and CENWAT (or equivalent ACS certificates)
- you have compiled an EPA portfolio, which your interview will be based on

Your training provider will send copies of these documents to Energy & Environment Awards.

## What is the EPA Specification?



The end-point assessment specification provides details of:

- the assessment methods used in your EPA
- KSBs that are covered by each assessment
- KSBs amplification and guidance

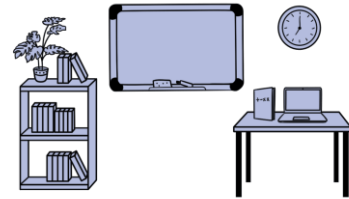
The Specification can be accessed via the link below:

[Plumbing and Domestic Heating Technician Level 3 v1.2 - Energy & Environment Awards](#)

## Section 2: Apprentice EPA Journey

### Let us Begin Your EPA Journey.

Find a quiet place and read on....



Your EPA journey consists of 3 elements:

- A training programme with on the job, off the job elements, typically 48 months
- Gateway meeting window
- End-point Assessment (EPA) typically 6 months

Your journey begins with the training program. Your employer and training provider are responsible for this part. This is where you will gain the required Knowledge, Skills and Behaviours (KSBs).

### How Will You Be Assessed in the End-point Assessment?

You will complete several assessment components in a set order. This structure ensures you will meet all requirements and successfully complete your EPA.

#### **Step 1:** Non-Integrated Assessment Components.

These must be completed first, in the following order:

- EEA knowledge test
- EEA practical planning test
- EEA practical (core tasks 1 -3)
- EEA interview based on an EPA portfolio

#### **Step 2:** Integrated Assessment Components

After completing all non-integrated components, you will take:

- ACS knowledge test (paper 2)
- ACS practical (task 4)

### Why this order?

This order helps you complete the EPA successfully and meets all regulatory requirements.

## What If You Already Have ACS Assessments?

If you have completed the relevant ACS assessments at least 6 months before your certification renewal date, these can count towards your EPA. In that case, you will be exempt from the ACS knowledge test and ACS practical.

Each component receives a preliminary grade, which is carried to calculate your final grade. You must pass all components to achieve this qualification.

Your final grade will be:

- Fail
- Pass
- Distinction.
- 

For further guidance refer to Section 3 End-point Assessment Components.

## Keep Track of Your Schedule

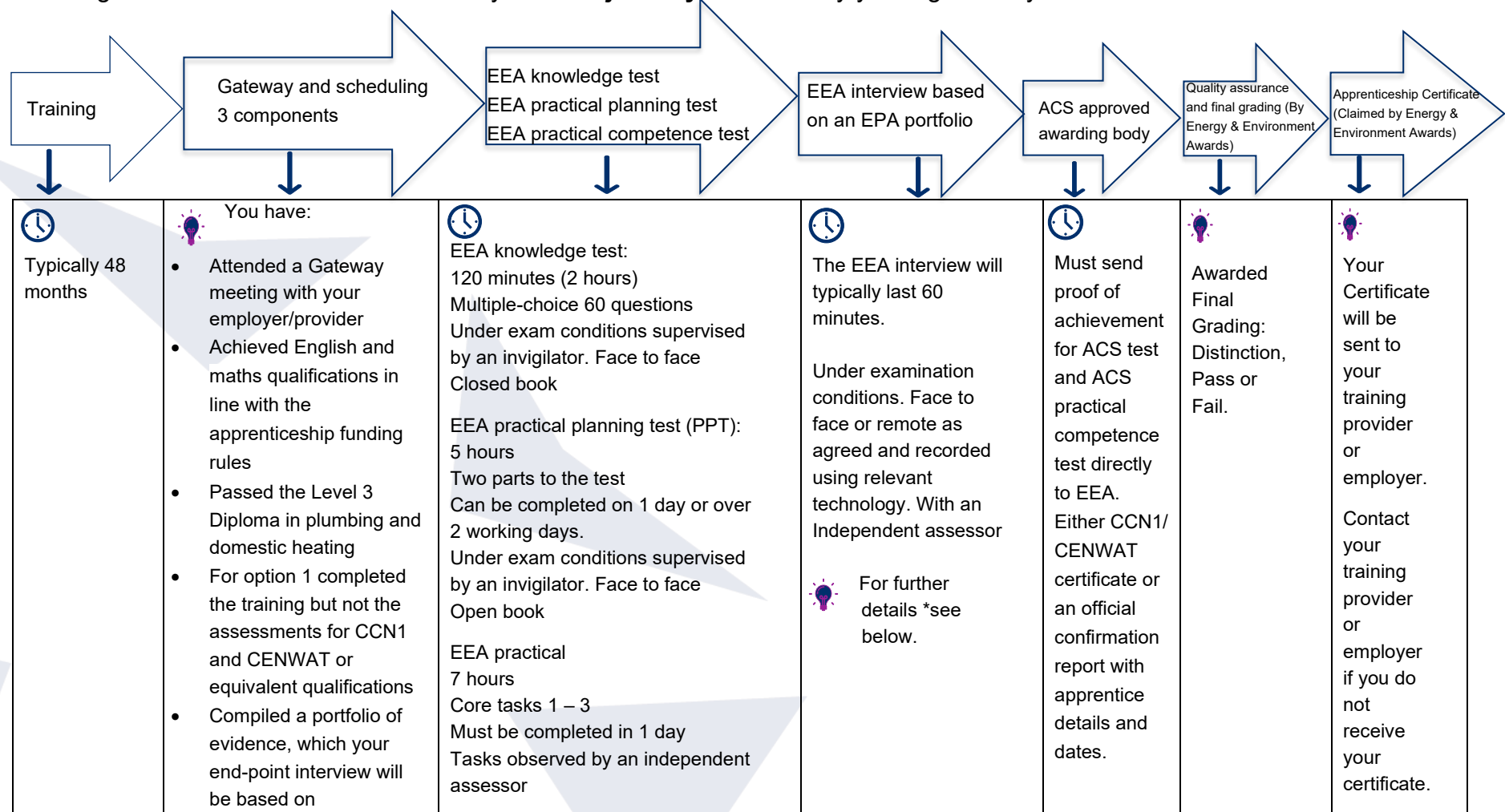
It is important for you to keep a record of when your six components are scheduled. We suggest you use the 'At a Glance' tables on page 5.

## Reasonable adjustments

A reasonable adjustment is any action that helps to reduce the effect of a disability or difficulty that places you at a substantial disadvantage during assessments. If this applies to you make sure you tell your training provider who can make an application for a reasonable adjustment to Energy & Environment Awards on your behalf.

## Your EPA Journey in a Diagram

The diagram below illustrates the order of your EPA **journey** from the day you register to your final certification:



\*For further details refer to Section 3 in this Apprentice Guide or Section 2 of the Specification.

## Section 3: End-point Assessment Components

Now let us continue your journey through EPA. There are six components that you must pass to be awarded a certificate.

### Component 1:EEA knowledge test

#### Overview

The EEA knowledge test is a computer or a paper based test. You will have 120 minutes (2 hours) to complete the test. The test consists of 60 questions.

The multiple-choice questions will have four possible answers of which one will be correct.

EEA knowledge test focuses on specific knowledge Learning Outcomes (LOs). The reference numbering may not be in order because some LOs are assessed in other assessments.



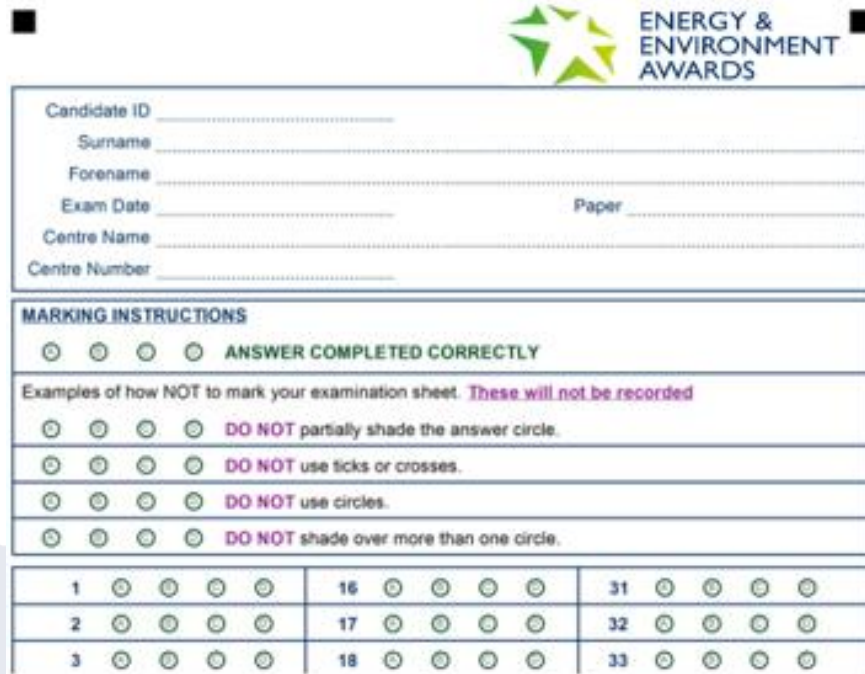
The following table below outlines the procedure for conducting the EEA knowledge test:

Who will start and finish my EEA?	You will sit your EEA knowledge test in the presence of an invigilator.												
What will my EEA knowledge test look like?	<p>The EEA knowledge test may be paper-based or taken online. Your training provider will let you know what the format of your test is.</p> <p>All other aspects of the test are exactly the same, including:</p> <ul style="list-style-type: none"> <li>• content</li> <li>• timings</li> <li>• question types</li> <li>• scoring</li> </ul>												
How will the question appear in a paper-based test?	<p>Here is an example of how the paper based question will appear:</p> <table border="1"> <tr> <th colspan="2">Question 1</th></tr> <tr> <td colspan="2">In a workplace, who is responsible for maintaining health and safety?</td></tr> <tr> <th colspan="2">Possible answers</th></tr> <tr> <td>a)</td><td>Everyone</td></tr> <tr> <td>b)</td><td>Employers</td></tr> <tr> <td>c)</td><td>Safety managers</td></tr> </table>	Question 1		In a workplace, who is responsible for maintaining health and safety?		Possible answers		a)	Everyone	b)	Employers	c)	Safety managers
Question 1													
In a workplace, who is responsible for maintaining health and safety?													
Possible answers													
a)	Everyone												
b)	Employers												
c)	Safety managers												



d) Most senior person on-site

You must **select one answer** that you think is correct. You will be provided with an answer sheet where you will be expected to shade in the answer you have selected. Here is an example:



**Candidate ID** \_\_\_\_\_  
**Surname** \_\_\_\_\_  
**Forename** \_\_\_\_\_  
**Exam Date** \_\_\_\_\_ **Paper** \_\_\_\_\_  
**Centre Name** \_\_\_\_\_  
**Centre Number** \_\_\_\_\_

**MARKING INSTRUCTIONS**

● ● ● ● **ANSWER COMPLETED CORRECTLY**

Examples of how NOT to mark your examination sheet. *These will not be recorded*

● ● ● ● **DO NOT** partially shade the answer circle.

● ● ● ● **DO NOT** use ticks or crosses.

● ● ● ● **DO NOT** use circles.

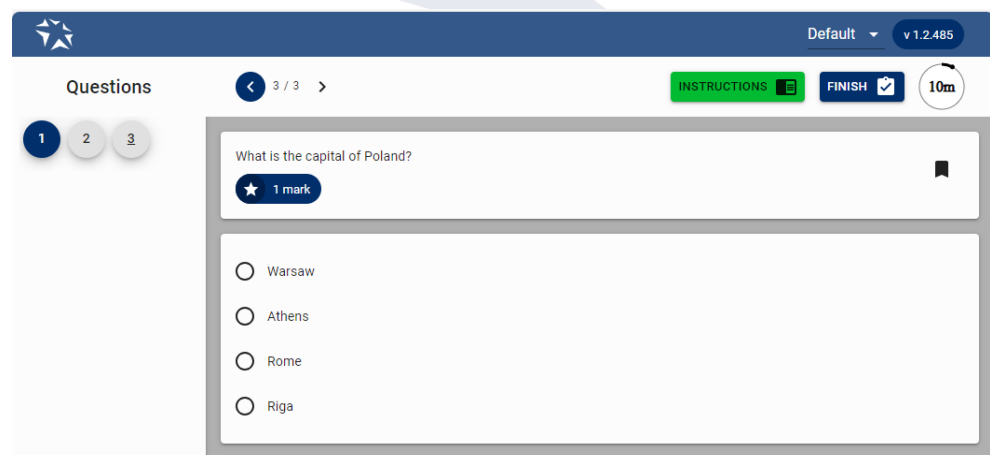
● ● ● ● **DO NOT** shade over more than one circle.

1	●	●	●	●	16	●	●	●	●	31	●	●	●	●
2	●	●	●	●	17	●	●	●	●	32	●	●	●	●
3	●	●	●	●	18	●	●	●	●	33	●	●	●	●

**Always have a go even if you are not sure that it is the correct answer.**

How will the question appear in an online test?

Here is an example of how the question will appear in an online version of the test:



Questions 3 / 3

INSTRUCTIONS FINISH 10m

1 2 3

What is the capital of Poland?

★ 1 mark

☐ Warsaw

☐ Athens

☐ Rome

☐ Riga

You must **select one answer** that you think is correct.

Can I take any resources



The test is closed which means that you cannot refer to reference books or any other materials. You will be provided with stationery on



into the exam room?	the day. You can take into the exam a scientific non-programmable calculator.																
Can I have access to the internet?	No access to the internet is allowed and this means you must not take your SMART watch into the exam room.																
How will my EEA knowledge test be organised?	<p><b>Locations:</b> Your EEA knowledge test will take place at your employer's or training provider's premises or a suitable venue.</p> <ul style="list-style-type: none"> <li>You will take the knowledge test in a quiet space and in the presence of an invigilator</li> <li>Your knowledge test will be scheduled by your employer or training provider with Energy &amp; Environment Awards</li> <li>If you fail the EEA knowledge test, you can re-sit or re-take the failed test at your employer's discretion. There are no limits to the number of re-sits or re-takes you can take but it is important to revise and ensure that you are confident with the knowledge you are being tested on</li> </ul>																
What criteria will I have to learn for my test?	The EEA knowledge test questions are based on core knowledge. Below is a list of the knowledge criteria, assessed in the EEA knowledge test along with the range of questions that will be allocated to an assessment paper:																
<b>AND</b>	<table> <tr> <th>Number of Questions</th><th>Learning outcome</th></tr> <tr> <td>1</td><td>1. Know and apply health and safety legislation that applies to the building services industry</td></tr> <tr> <td>2</td><td>2. Understand hazardous situations working in the building services industry</td></tr> <tr> <td>1</td><td>4. Understand how to respond to accidents</td></tr> <tr> <td>1</td><td>6. Understand how to work safely with heat producing equipment</td></tr> <tr> <td>1</td><td>7. Understand and safely use access equipment</td></tr> <tr> <td>1</td><td>8. Understand working safely in excavations and confined spaces</td></tr> <tr> <td>1</td><td>10. Know types of plumbing and domestic heating system pipework and their jointing principles</td></tr> </table>	Number of Questions	Learning outcome	1	1. Know and apply health and safety legislation that applies to the building services industry	2	2. Understand hazardous situations working in the building services industry	1	4. Understand how to respond to accidents	1	6. Understand how to work safely with heat producing equipment	1	7. Understand and safely use access equipment	1	8. Understand working safely in excavations and confined spaces	1	10. Know types of plumbing and domestic heating system pipework and their jointing principles
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1	8. Understand working safely in excavations and confined spaces																
1	10. Know types of plumbing and domestic heating system pipework and their jointing principles																
How many questions will there be on each criteria?																	

	1	12. Understand and use clips and brackets to support plumbing and domestic heating pipework and components
	1	14. Understand units of measurement used in the plumbing and domestic heating systems industry
	1	15. Understand properties of materials
	2	16. Understand the relationship between energy, heat and power.
	2	17. Understand principles of force and pressure and their application in the plumbing and domestic heating systems industry.
	1	18. Understand mechanical principles in the plumbing and domestic heating systems industry
	1	19. Understand principles of electricity in the plumbing and domestic systems industry
	1	20. Know sources of renewable and non-renewable energy
	1	21. know current energy efficiency advice and guidance
	1	22. Know the role of the construction team within the plumbing and domestic heating systems industry
	1	24. Know how to communicate with others
	1	25. Understand responsibilities of relevant people in the building services industry
	1	26. Understand and produce work programme for tasks in the plumbing and domestic heating systems industry
	2	28. Understand cold water supply to dwellings
	5	29. Understand and recognise the layouts of plumbing and domestic heating systems
	3	30. Understand and install cold water systems
	2	31. Understand and install hot water systems

	3	32. Understand and install domestic central heating systems
	2	33. Install sanitary appliances and pipework systems.
	2	34. Understand and install rainwater systems
	1	36. Understand and perform a soundness test and commission cold water systems and components
	1	37. Understand and perform a soundness test and commission hot water systems and components
	1	38. Understand and perform a soundness test and commission central heating systems and components
	1	40. Understand and perform a soundness test and commission rainwater systems and components
	1	46. Understand and carry out service and maintenance on cold water systems
	1	47. Understand and carry out service and maintenance of hot water systems
	1	48. Understand and carry out service and maintenance on central heating systems
	1	49. Understand and carry out service and maintenance on sanitary appliances and pipework systems
	1	56. Know the basic operating principles of micro-renewable energy technologies.
	1	57. Understand requirements to install micro-renewable energy systems to existing systems.
	2	58. Understand factors affecting fuel selection
	2	59. Know combustion processes of fuel supplied systems
	2	60. Know principles of chimney/flue systems

	1	61. Understand and perform preinstallation activity prior to undertaking electrical work on plumbing and domestic heating systems
	1	62. Apply industry standard safe
	 <b>Remember</b> the questions have been written to reflect the Plumbing and domestic heating technician role. For Amplification and Guidance (Assessment Criteria) refer to Section 2 of the PDHT V1.2 Specification. <b>A link to the Specification is available on page 11.</b>	
What should I do to prepare for the EEA knowledge test?	<p><b>You should be prepared to:</b></p> <ul style="list-style-type: none"> <li>• revise the learning outcomes listed above</li> <li>• ask your employer or training provider for additional questions that they have prepared to support you</li> <li>• attend the multiple-choice test which will last 60 minutes</li> </ul> <p> While on-programme, the employer or training provider must ensure you are:</p> <ul style="list-style-type: none"> <li>• familiar with all areas assessed by the multiple-choice test assessment as listed above</li> <li>• supported in completing a practice test and provide you with constructive feedback to enable you to identify areas you need to carry out further revision in</li> </ul>	

### Practice Component 1: EEA knowledge test



You should have an opportunity to have a practice EEA knowledge test which mirrors the real assessment. The practice EEA knowledge test would be set up, using the structure in the table above, by your employer or training provider. The feedback provided will assist you with preparing for the actual EEA knowledge test.


## Component 2: EEA practical planning test

### Overview

The EEA practical planning test (PPT) checks how you can plan a plumbing or heating job before starting work. It's about showing that you understand the steps, safety requirements and resources needed to complete the task correctly. The EEA practical planning test will be set by Energy & Environment Awards and you will complete the test under examination conditions at an approved assessment centre. You will be required to complete two planning workbooks. You must demonstrate that you can apply your core knowledge to create a safe, efficient and professional plan.



The following table below outlines the procedure for conducting an EEA practical planning test.

Who will assess me?	1 independent assessor appointed by Energy & Environment Awards.
Structure of your PCT	<p> <b>Time allowed:</b> You have 5 hours in total to complete the EEA practical planning test. It's split into two parts and each part has two tasks. You must finish both parts within the 5 hour limit. This can be completed over two working days.</p> <p><b>What's in each part?</b></p> <ul style="list-style-type: none"> <li>• Part 1: Task planning – planning the job before starting work</li> <li>• Part 2: Technical planning and risk – looking at safety and technical details in your plan</li> </ul> <p><b>How will the tasks be scheduled?</b> Your employer or training provider will decide if you complete both parts of the EEA practical planning test on the same day or over two days.</p> <ul style="list-style-type: none"> <li>• You'll be given two workbooks during the EEA practical planning test</li> <li>• Each workbook contains one task</li> <li>• You'll need information from the first workbook to completing the second, so keep both with you throughout the test</li> </ul>

- The invigilator will distribute the second workbook after everyone has finished the first task

You'll complete two tasks under exam conditions, so make sure you follow all instructions and work on your own.

Refer to pages 50 - 55 in Energy & Environment Awards PDHT V1.2 Specification for knowledge and skills coverage, see grading criteria in Section 3 for EEA practical planning test coverage of the standard. Your EEA practical planning test will be managed by an Energy & Environment Awards invigilator .

### **Understanding the Pass Mark**

This EEA practical planning test has two parts:

- Part 1: worth 42 marks
- Part 2: worth 40 marks
- Total: 82 marks available

The pass mark is 41 out of 82 (50%)

### **Will I get a break?**

There may be a break after a task is completed to allow you to have a meal/comfort break, which will be supervised. During this the clock will be stopped and then restarted to ensure that the assessment duration is not reduced.

### **Ending the EEA practical planning test early**

You can choose to finish the EEA practical planning test before the time runs out. Before you do this, make sure you are confident that you have shown all the skills and knowledge needed for the assessment. The invigilator (the person supervising the test) will check that you understand:

- What the assessment requires
- What could happen if you finish early

If needed, the invigilator may suggest that you keep going to make sure you meet all the requirements.

**Where will the assessment take place?**

Your EEA practical planning test must take place:

- In an approved assessment centre (classroom setting)
- In a suitable area that is:

	<ul style="list-style-type: none"> <li>○ Quiet</li> <li>○ Well-lit</li> <li>○ Has enough space and privacy</li> </ul> <p>You must be able to work without interruptions and without getting help or an unfair advantage from anyone else.</p> <p>You should not be disturbed at any point during the assessment.</p>
What will I have to produce?	<p>For your EEA practical planning test, you will need to create a system that meets the job specification for:</p> <ul style="list-style-type: none"> <li>● Rainwater</li> <li>● Heating</li> <li>● Hot water</li> <li>● Cold water</li> </ul> <p>You will then produce:</p> <ul style="list-style-type: none"> <li>● Pipework sizing for hot and cold water</li> <li>● Final layout plans</li> <li>● Materials list</li> <li>● Merchant order (list of items to buy)</li> <li>● Work programme (schedule of tasks)</li> <li>● Risk assessment and method statement</li> <li>● Calculations and information presented in a clear format for quotation and tender</li> </ul> <p>The tasks set by Energy &amp; Environment Awards will allow you to complete all of the above. Check Section 3 for grading criteria for the EEA practical planning test. For amplification and guidance, see the knowledge and skills coverage in the PDHT V1.2 Specification (pages 50–55). A link to the Specification is on page 11.</p>
What tasks will I have to cover?	<p>The tasks will allow you to undertake the activities required for the practical planning test.</p> <p>For amplification and guidance, see the knowledge and skills coverage in the PDHT V1.2 Specification (pages 50–55). A link to the Specification is on page 11.</p>
Who sets the tasks?	<p>Energy &amp; Environment Awards.</p> <p><b>Before the Assessment Starts:</b></p> <p>Before you begin the EEA practical planning test, the invigilator will:</p> <ul style="list-style-type: none"> <li>● give you written and verbal instructions so you understand the two workbooks you need to complete</li> </ul>



	<ul style="list-style-type: none"> <li>the maximum time allowed for both workbook</li> <li>tell you the start and finish times and how to hand in your workbooks</li> <li>ask you to sign the front sheet of each workbook</li> <li>tell you which reference materials you can use for each workbook</li> </ul> <p>The tasks in the workbooks are designed to give you the chance to show all the knowledge and skills assessed in the EEA practical planning test.</p>
What resources can I use?	<p>The following equipment and resources must be provided by your employer or training provider and available for you to use during the EEA practical planning test:</p> <ul style="list-style-type: none"> <li>Normative documents (official guides and standards): <ul style="list-style-type: none"> <li>Domestic Building Services Compliance Guide</li> <li>WRAS Water Regulations Guide</li> <li>Building Regulations: Parts G and L</li> <li>BS 8558</li> <li>BS 806 (Parts 1–5)</li> <li>BS 12056 (Parts 1–3)</li> <li>Manufacturers' technical documents</li> </ul> </li> </ul> <p><b>Other items you will need:</b></p> <ul style="list-style-type: none"> <li>Scientific calculator</li> <li>Writing materials</li> <li>Stationery</li> </ul> <p>Energy &amp; Environment Awards will provide:</p> <ul style="list-style-type: none"> <li>The PDHT V1.2 EEA practical planning test resource workbooks for Part 1 and Part 2 (these include short-answer questions and some calculations)</li> <li>Building plans with a job specification</li> </ul> <p><b>Important:</b> The EEA practical planning test is open book which means that you can refer to reference books or materials whilst taking the test.</p>
Preliminary Grading	The independent assessor will award a preliminary grade. You must pass <b>ALL</b> the pass criteria in order to achieve a pass.
Overall grading for this component	Fail or Pass



## Practice Component 2: EEA practical planning test

You should have an opportunity to have an EEA practice practical planning test which mirrors the real assessment. A practice EEA practical planning test would be set up for you using the structure in the table above by your employer or training provider.

## Component 3: EEA practical

### Overview

The EEA practical is part of your end-point assessment.

In this test:

- An independent assessor, appointed by Energy & Environment Awards, will watch you complete practical tasks in an approved assessment centre
- The test takes place in a simulated workshop environment that is designed to be as close as possible to your real working conditions

You will complete:

- **EEA practical:** these cover essential skills for plumbing and heating work

The assessor will also ask you some questions during the EEA practical. These questions are part of the assessment.

Your employer or training provider must give you **at least 2 weeks'** notice before the test.



The following outlines the procedure for conducting the EEA practical:

Who will assess me?	1 independent assessor appointed by Energy & Environment Awards.
Structure of your EEA practical	<p>The EEA practical is where you show your hands on skills in a simulated workshop environment.</p> <p>You will complete three practical tasks in one working day as part of the EEA practical.</p> <p>These tasks should take 7 hours in total. If needed, the assessor can give you up to 42 extra minutes (10%) to finish a task or answer questions.</p> <p><b>Before You Start</b></p> <ul style="list-style-type: none"> <li>• The independent assessor will explain the format and timings of the test</li> <li>• This briefing does not count towards your assessment time</li> </ul> <p><b>During the Test</b></p> <ul style="list-style-type: none"> <li>• You can have meal and comfort breaks</li> </ul>

	<ul style="list-style-type: none"> <li>The clock will stop during breaks and restart when you continue, so you don't lose time</li> </ul> <p><b>Ending the EEA practical early</b></p> <p>You can choose to finish early, but only if you are sure you have shown all required skills and knowledge.</p> <p>The assessor will check that you understand the impact of ending early and may advise you to continue if needed.</p>
Where will the assessment take place?	<p>The EEA practical will take place in an independent assessment centre in a simulated workshop area. This workshop must feel like a real working environment so you can show your skills properly.</p> <p><b>Important Rules</b></p> <ul style="list-style-type: none"> <li>You must be able to work without interruptions and without help or advantage from anyone else</li> <li>The test bays must be independent, and you must not have used or seen your bay before the test</li> </ul>
What will I do in the EEA practical?	<p>The EEA practical is your chance to show the skills you've learned. You will complete three core tasks:</p> <p><b>EEA practical core task 1: Install and Test a Domestic Plumbing System</b></p> <p>You will be required to complete the part installation and testing of a domestic plumbing system, incorporating:</p> <ul style="list-style-type: none"> <li>fabricating a domestic pipework layout</li> <li>a branch connection from a water closet (WC) and a waste pipe branch from a wash basin to a soil stack</li> <li>a hot and cold water tap connections to a wash basin</li> <li>the installation of a double panel radiator, this is also intended to demonstrate manual handling techniques</li> <li>utilising different pipework materials, including copper, plastic pressure and plastic soil and waste pipe</li> <li>utilising simple jointing techniques, e.g. push fit, solvent welded</li> <li>utilising complex jointing techniques including soldered, compression and press fit</li> <li>pipe bending (Offset and Passover) techniques</li> <li>utilising brackets and fixings</li> </ul>

	<ul style="list-style-type: none"> <li>• dimensional tolerances of <math>\pm 2\text{mm}</math> on the lengths and <math>\pm 2^\circ</math> on the angles</li> <li>• soundness testing</li> <li>• testing the system, pressure pipework to withstand a pressure test of 3 bar for 5 minutes, soil and waste pipework must maintain an air test of 38 mm water gauge for 3 minutes</li> <li>• Soundness testing of the soil and waste pipework to require the use of a stepladder or hop up work platform</li> </ul> <p><b>EEA practical core task 2: Install, Wire, and Commission Electrical Components</b></p> <p>You will be required to complete the installation, testing and commissioning of electrical components and electrical controls of a domestic heating and hot water system, incorporating:</p> <ul style="list-style-type: none"> <li>• installing and wiring either a room thermostat or cylinder thermostat (one of which may be pre-installed)</li> <li>• safe isolation</li> <li>• testing the system</li> <li>• commissioning the system</li> </ul> <p><b>EEA practical core task 3: Service and Maintain Electrical Components</b></p> <p>You will be required to complete servicing and maintenance including fault finding, diagnosis, repair and testing procedures, of the electrical components of a domestic hot water system, incorporating:</p> <ul style="list-style-type: none"> <li>• finding 2 electrical faults in the system</li> <li>• diagnosing the 2 faults</li> <li>• repairing the 2 faults</li> <li>• testing the system</li> </ul>
What resources can I use?	Your employer/training provider will provide equipment and resources needed for the EEA .
How many questions will I be asked?	<p>During the EEA practical, the assessor will ask you at least 3 open questions, one for each core task.</p> <p>These questions help confirm that you understand why you did things the way you did and the choices you made to complete the tasks.</p>

	The assessor may also ask follow up questions if needed. The time spent answering questions is included in your overall assessment time.
Preliminary Grading	The independent assessor will award a preliminary grade. You must pass <b>ALL</b> the pass criteria in order to achieve a pass.
Overall grading for this component	Fail or Pass

### Practice Component 3: EEA practical

You should have an opportunity to have an EEA practice practical which mirrors the real assessment. A practice EEA practical would be set up for you using the structure in the table above by your employer or training provider.


## Component 4: EEA interview based on an EPA Portfolio

### Overview

The EEA interview is based on your EPA portfolio. It is to allow you to demonstrate how you have met the KSBs in order to carry out your occupational role as a plumbing and domestic heating technician effectively and safely. The interview allows for testing of responses where there are a range of potential answers that cannot be tested through the practical competence test.



The following outlines the procedure for conducting an EEA interview based on your EPA portfolio:

Who will assess me?	1 independent assessor appointed by Energy & Environment Awards will conduct the interview.
How will the EEA interview based on an EPA portfolio be organised?	<p><b>Locations:</b> Your EEA interview will take place at your employer's premises or a suitable venue, such as a training provider's premises.</p> <p> <b>Time:</b> Your EEA interview must last 60 minutes (1 hour). The independent assessor can increase the time by up to 6 extra minutes (10%) if you need time to finish your last answer.</p> <p><b>Your end point EEA interview will be:</b></p> <ul style="list-style-type: none"> <li>• a discussion between you and the independent assessor</li> <li>• face to face or remote (e.g. via Microsoft Teams), as agreed</li> <li>• assessed and outcomes will be recorded by the assessor on official Energy &amp; Environment Awards interview documents</li> <li>• recorded using the relevant technology such as Microsoft Teams or an audio recording device</li> <li>• Under exam conditions</li> </ul> <p>You will have access to your EPA portfolio throughout the EEA interview.</p> <p><b>Ending the assessment early</b> You can choose to finish the assessment early, but only if you are sure you've shown everything required.</p>

	<p><b>Before you decide:</b></p> <p>The independent assessor will make sure you understand all the assessment requirements and what happens if you end early. The assessor may suggest you continue if they think you haven't covered everything.</p> <p><b>Important:</b></p> <p>The independent assessor or Energy &amp; Environment Awards cannot end the assessment for you (unless there's an emergency). If you choose to finish early, the independent assessor will record your request.</p>
What topics will I have to cover?	<p>Your EEA interview will check that you understand and can apply the knowledge, skills and behaviours (KSBs) needed for your role as a plumbing and domestic heating technician:</p> <ul style="list-style-type: none"> <li>• The questions will be based on your EPA portfolio</li> <li>• They will cover all parts of the PDHT V1.2 standard, but the assessor will focus on the areas shown in your portfolio</li> </ul> <p>For further details refer to knowledge, skills and behaviours (KSBs) coverage, in the PDHT V1.2 Specification on pages 66 - 91. <b>A link to the Specification is available on page 11.</b></p>
How many questions will I be asked?	<ul style="list-style-type: none"> <li>• The independent assessor will ask at least 10 questions to explore your level of knowledge, skills and behaviours</li> <li>• Standardised open questions will be asked based on the contents of your EPA portfolio</li> <li>• Set questions which may be contextualised to the contents of your EPA portfolio of evidence</li> <li>• Follow-up questions in order to seek clarification</li> </ul>
Preliminary Grading	The independent assessor will award a preliminary grade. You must pass <b>ALL</b> the pass criteria in order to achieve a pass.
Overall grading for this component	Fail, Pass or Distinction

#### Practice Component 4: EEA interview based on an EPA Portfolio

You should have an opportunity to have a practice EEA interview based on your EPA portfolio which mirrors the real assessment. The practice EEA interview based on your EPA portfolio would be set up, using the structure in the table above, by your employer or training provider.

## EPA portfolio requirements

The requirements are as follows:

Throughout the on-programme part of your apprenticeship you must compile an EPA portfolio to support you in your interview. During the EEA interview the independent assessor will ask questions based on the evidence contained in your EPA portfolio.

For further guidance refer to:

- Section below 'How do I organise my portfolio of evidence?'
- PDHT V1.2 Specification Section 5: Guidance on EPA portfolio

### How do I organise my EPA portfolio?

You must complete an EPA portfolio template. You should request the EPA Portfolio Template from your provider.

The EPA portfolio template comprises seven tasks to support the compilation of the portfolio. Each task should help you focus on the specific knowledge, skills and behaviours that will be assessed in the question and answer session.

For each task there is:

- a series of questions to be answered
- a text box following each question for you to provide your response. These boxes will expand to take more text; however, quality of answer is more important than quantity. You will be able to use your answers as prompts in the interview
- tables for you to record evidence that supports the examples provided in response to the questions will be provided

Your EPA portfolio is **not assessed**. It serves the following purposes:

- A carefully prepared EPA portfolio will support you during the question and answer session
- Your organised EPA portfolio will allow you to refer to examples and discuss the evidence with the independent assessor
- It allows the assessor to review it before the question and answer session to help focus and contextualise the questions that you will be asked



## What should I include in my EPA portfolio?

### Quality vs quantity



You should be supported in selecting and mapping evidence for your portfolio by your employer or training provider.

We would advise you to choose the best pieces of evidence to support the answer to each question in the EPA portfolio template. The completed EPA portfolio should contain the five tasks with your responses and at least one piece of evidence backing up each of the questions. A piece of evidence may cover more than one question. No other evidence should be included.

Examples of acceptable evidence:

- evidence of experience gained in the workplace and simulated environments, collectively demonstrating competence against all knowledge, skills and behaviours (KSBs) of the standard
- workplace documentation and records
- workplace policies and procedures
- witness statements
- annotated photographs
- video clips with a maximum total duration of 10 minutes; you must be in view and identifiable

The above is not a definitive list. You can include other relevant evidence sources.



You **must not** include in your EPA portfolio any methods of self-assessment.

Evidence must be:

- produced by you (authentic)
- relevant to the task
- cross referenced and easily accessible in the portfolio
- produced during the time you were carrying out your on-programme training

## What can I do to prepare for the EEA interview based on an EPA portfolio?

You should:

- ensure there is quality evidence to cover the answer to each question in the EPA portfolio
- be familiar with the structure of your EPA portfolio
- know the tasks/KSBs covered by the EEA interview

- know where you have referenced your evidence by referring to your EPA portfolio
- know how you will be graded

### The role of your employer or training provider

Employers or training providers are expected to support you in preparing your EPA portfolio of evidence by:

- providing clear instruction and deadlines to allow you to plan and compile your portfolio in preparation for the Gateway meeting
- advising on which pieces of evidence to select
- authenticating evidence as valid
- signing off the EPA portfolio
- submitting the portfolio to Energy & Environment Awards as part of Gateway requirements

## Component 5: ACS knowledge test

### What is the ACS knowledge test?

The ACS knowledge test checks your understanding of gas safety. It is an integrated assessment, which means it forms part of your End-point Assessment (EPA).

This test includes theory based questions and is linked to mandatory ACS gas safety qualifications:

- CCN1 – Core Domestic Gas Safety
- CENWAT – Domestic Gas Central Heating Boilers and Water Heaters

(If you already hold equivalent theory tests for these qualifications, they may count.)

### Who Delivers the Test?

The ACS knowledge Test is delivered and marked by an approved awarding body. These awarding bodies follow strict Matters of Gas Safety requirements, so everything meets official gas safety regulations.

### Do You Need to Take It?

Yes, unless you have already completed the relevant ACS assessments at least six months before your certification renewal date. If you meet this condition, you do not need to take the ACS knowledge test as part of your EPA.

### Why Is It Important?

You must pass the ACS knowledge test (and the ACS practical test later) to successfully complete your EPA. Energy & Environment Awards will confirm your achievement after you finish all the non-integrated components.

## Component 6: ACS practical

### How Will This Be Graded?

The ACS Practical Test is graded as either:

- Pass
- Fail

To pass, you must achieve the UKAS approved Nationally Accredited Certification Scheme (ACS) Certificate of Competence for Gas Fitting Operatives – ACS practical.

### Who Organises This Test?

This assessment is organised and delivered by the ACS approved awarding body used by your training provider . They will schedule the test after you have completed all other EPA components.

## Overall grading

Your final EEA grade will be Fail, Pass, or Distinction.

It is based on your performance in all four EEA assessment components:

- EEA knowledge test
- EEA practical planning test
- EEA practical
- EEA interview based on your EPA portfolio of evidence

### To Pass:

- You must get at least a Pass in every component.
- A Pass means you have shown full competence against the standard.

### To Get a Distinction:

- You must achieve a Distinction in the Interview and a Distinction in the EEA Test

### How Each Part Is Marked:

- EEA knowledge test and EEA practical planning test: Based on your percentage score
- EEA practical and interview: Based on how many grading descriptors you meet

The EEA knowledge test is based on the minimum and maximum marks achieved.

Grade	Minimum mark	Maximum mark	%
Fail	0	35	NA
Pass	36	49	60%
Distinction	50	60	83.3%

You must demonstrate core knowledge and skills in an integrated way. The EEA practical planning test comprises 2 parts:

EEA practical planning test (PPT)	Total Marks
Part 1 - Task 1 planning the job before starting work	42
Part 2 – Task 2 technical planning and risk – looking at safety and technical details in your plan	40
Grand Total	82

To achieve a Pass, you must:

- complete all tasks
- achieve an overall minimum mark of 41

### Grading for all components

EEA knowledge test	EEA practical planning test	EEA practical	EEA interview based on an EPA portfolio	Overall grading
Fail in any component				Fail
Pass	Pass	Pass	Pass	Pass
Distinction	Pass	Pass	Pass	Pass
Pass	Pass	Pass	Distinction	Pass
Distinction	Pass	Pass	Distinction	Distinction

The grading descriptors that will be applied for each assessment along with additional details can be found in Section 3 of the Specification.

### Overall ACS Grading – What Happens After You Complete Both ACS Tests?

The ACS knowledge test and ACS practical test are each graded as Pass or Fail.

To complete your End-point Assessment (EPA), you must pass both ACS components. If you pass, you will receive the UKAS approved ACS Certificate of Competence for Gas Fitting Operatives, which confirms you meet national gas safety standards.

Energy & Environment Awards will only sign off your apprenticeship once they have official proof of your ACS achievement. This can be:

- A copy of your ACS certificate, or
- An official confirmation report from the approved awarding body

Without this evidence, your apprenticeship cannot be fully completed.

## Section 4: Resits and retakes

If you fail one or more EPA components you can re-sit or a re-take the failed component at your employer's discretion. Your employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, but a re-take does. You should have a supportive action plan to prepare for your re-sit or re-take.

Your employer and Energy & Environment Awards will agree the timescale for your re-sit or re-take. Failed EPA component(s) is typically re-sat or re-taken within 3 months of the end-point assessment (EPA) period fail notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 6 months of the EPA outcome notification.

Failed assessment component(s) must be re-sat or re-taken within a 6-month period from the EPA outcome notification, otherwise the entire EPA will need to be re-sat or re-taken in full.

### Re-sit and Re-take Rules

If you need to re-sit or re-take more than one assessment component:

- Complete all non-integrated assessments first (EEA knowledge test; EEA practical planning test; EEA practical and EEA interview based on an EPA portfolio)
- Then complete the integrated assessment (ACS knowledge test and ACS practical)

Any re-sit or re-take of the integrated assessment must happen within the usual EPA timeframe. This rule is in place so you are not disadvantaged by limited assessment windows (for example, when qualification assessments are only available once a year).

### Practical Competence Test

- **EEA practical (core tasks 1, 2, and 3):** Only the tasks you failed need to be re-sat or re-taken.
- **ACS practical:** Follow the re-sit and re-take rules set by the ACS approved awarding organisation.

### ACS Tests

- ACS knowledge test and practical test follow the re-sit and re-take rules provided by the approved awarding organisation

Re-sits and re-takes will not be offered to you if you wish to move from pass to a higher grade.

You will get a maximum EPA grade of a pass if you need to re-sit or re-take one or more assessment methods, unless Energy & Environment Awards determines there are exceptional circumstances.

Energy & Environment Awards resit and re-take policy can be found at:

<https://energyenvironmentawards.co.uk/policies-and-fees/>



## Section 5: Appendices

### Appendix A: Glossary

## Appendix A: Glossary

**Amplification** – provides more detail on how individual knowledge, skills or behaviours statements should be interpreted. Where the KSB statements, themselves are deemed self-explanatory, no amplification is provided. Assessment may include questions on anything identified in the amplification

**Behaviours** – mindsets, attitudes or approaches needed for competence. Whilst these can be innate or instinctive, they can also be learnt. Behaviours tend to be very transferable. They may be more similar across occupations than knowledge and skills. For example, team worker, adaptable and professional

**Elements** – are the knowledge, skills and behaviours and what is needed to competently undertake the duties required for an occupational standard

**Guidance** – is only provided where it is required to support interpretation of the KSB statements

**Gateway** – the stage of the apprenticeship where the apprentice, employer and trainer determine whether the apprentice is ready to undertake the End-Point Assessment

**Independent Assessor** – Will holistically assess the knowledge, skills and behaviours (KSBs) that you have been learnt throughout the apprenticeship. Their role as an Independent Assessor would involve assessing components 2 (practical planning test, 4 (EEA practical competence test) and 3 (interview based on an EPA portfolio)

**Knowledge** – the information, technical detail, and ‘know-how’ that someone needs to have and understand to successfully carry out the duties. Some knowledge will be occupation-specific, whereas some may be more generic

**Skills** – the practical application of knowledge needed to successfully undertake the duties. They are learnt through on and/or off-the-job training or experience

**Standard** – An occupational standard is a description of an occupation. It contains occupational profile, and describes KSBs needed for someone to be competent in the occupation’s duties. The occupational standards are developed by employers for occupations that meet the Skills England current criteria. For further details refer to: <https://skillsengland.education.gov.uk/apprenticeship-standards/st0158-v1-2?view=standard>

**Topic** - is a collection of elements grouped into a theme e.g., Health and Safety

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