ENERGY & ENVIRONMENT AWARDS

Skills for a greener world

EEA Level 3 End-point Assessment for Power Network Craftsperson
(Overhead Lines; Underground Cables; Substation Fitting)

Apprentice Guide

QAN 610/6023/9
ST0156 V1.0 V1.1

Apprentice Guide for

EEA Level 3 End-point Assessment for Power Network Craftsperson

QAN 610/6023/9

Updates to this Guide 4

Introduction 6

How This Apprentice Guide Is Organised 6

How to Use This Guide 6

Section 1: The Basics 7

What is an Apprenticeship Standard? 7

What is an Assessment Plan? 7

What is an end-point assessment (EPA)? 8

What are the Gateway Requirements? 8

What is the EPA Specification? 9

Section 2: Apprentice EPA Journey 10

Let us Begin Your EPA Journey. 10

How will you be assessed in the end-point assessment? 10

Your EPA Journey in a Diagram 12

Section 3: End-point Assessment Components 13

Component 1: Industry Context 'Trade Test' 13

Practice Component 1: Industry Context 'Trade Test' 18

Component 2: Technical Interview 19

Practice Component 2: Technical Interview 20

Component 3: Behaviour and Progress Final Assessment 21

Overview 21

Practice Component 3: Behaviour and Progress Reviews 23

Overall grading 23

Section 4: Resits and retakes 24
Section 5: Appendices 25
Appendix A: Glossary 25

Updates to this Guide

Since the first publication of Energy & Environment Awards Power Network Craftsperson Apprentice Guide, the following updates have been made.

Version	Date first published	Section updated	Page(s)
v2.0	May 2025	Rebranded	All
v1.1	Oct 2023	Footer updated to make consistent	12-27
v1.0	August 2023	First published	All

At A Glance Component 1: Industry context 'Trade Test'

Date(s):	
Time:	
Location:	
Examination Conditions:	Your place of work or training environment. A controlled assessment location that reflects the hazards and risks of a real-time working environment
Additional Requirements:	
Assessed and marked by:	Technical expert, approved by Energy & Environment Awards

At A Glance Component 2: Technical Interview

Date(s):	
Time:	
Location:	
Examination Conditions:	With an Energy & Environment Awards assessor in your place of work or training environment
Additional Requirements:	
Assessed and marked by:	Technical expert, approved by Energy & Environment Awards

At A Glance Component 3: Behaviour and Progress Final Assessment

Date (Review 1):	
Time:	
Location:	
Date (Review 2):	
Time:	
Location:	
Examination Conditions:	
Additional Requirements:	
Assessed and marked by:	Technical expert, approved by Energy & Environment Awards

Introduction

Energy & Environment Awards 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

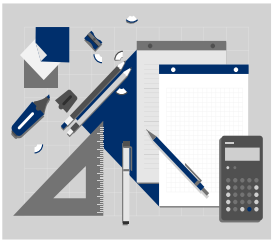
How to Use This Guide

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 Power Network Craftsperson (PNC) 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 Power Network Craftsperson standard, which was written by employers. It contains the Power Network Craftsperson'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/apprenticeship-standards/st0156-v1-1

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/1055/power_network_craftsperson.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 30 months on-programme working towards your standard with a minimum of 20% off-the-job training. You are required to spend a minimum of 12 months on-programme. 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 period will typically last 6 months. The end-point assessments consist of 3 components:

- Industry context 'Trade Test'
- Technical interview
- Behaviour and Progress Final Assessment

Each component has a provisional grade, and each grade is carried forward to award a final grade. You must pass all 3 components to pass your apprenticeship.

The final grade can be a Fail, Pass or Distinction.

What are the Gateway Requirements?

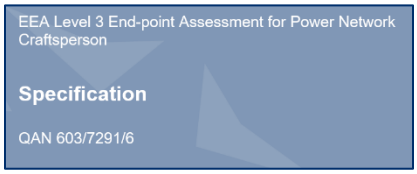
Gateway is a meeting where your employer, training provider and you ensure that you are confident that you can demonstrate all the KSBs defined in the apprenticeship standard and you are ready for EPA. After the meeting, your training provider will confirm the outcomes of the Gateway meeting by sending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

- achieved English and maths at level 2

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

What is the EPA Specification?

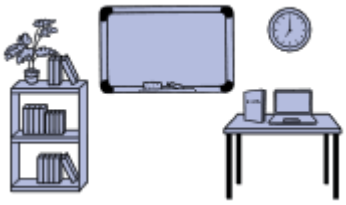
The end-point assessment specification provides details of the assessment methods used in your EPA, which:



- KSBs that are covered by each assessment
- KSBs amplification and guidance

The Specification can be accessed via the link below:
https://energyenvironmentawards.co.uk/epa/power-network-craftsperson/

Section 2: Apprentice EPA Journey



Let us Begin Your EPA Journey.

Find a quiet place and read on….

Power Network Craftsperson is a core and options apprenticeship standard. You must be trained and assessed against the core and one of the following specialisms:

- Overhead Lines
- Underground Cables
- Substation Fitting

Your EPA journey consists of 3 elements:

- A training programme with on the job, off the job elements, typically 30 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 be assessed on the following components':

1. **Industry context 'Trade Test'**
2. **Technical interview**
3. **Behaviour and Progress Final Assessment**

The technical interview must take place after the successful completion of the Trade Test assessment and during the final month of the apprenticeship. It is important for you to keep a record of when your 3 components are scheduled. We suggest you use the 'At a Glance' tables on page 5.

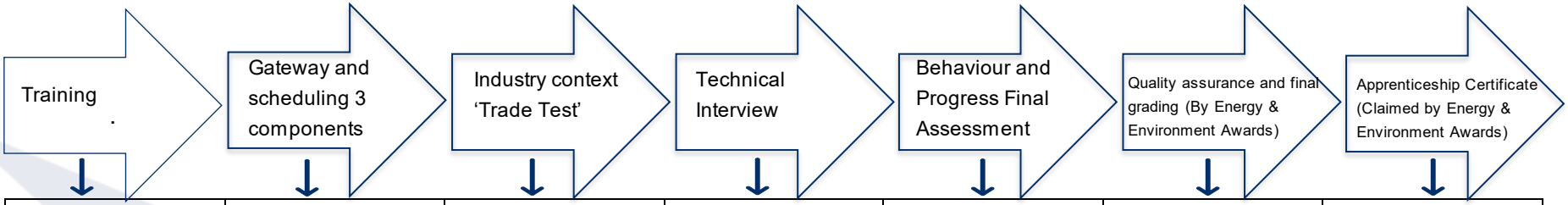
You must pass all 3 components to achieve this qualification. For further guidance refer to Section 3 End-point Assessment Components.

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:



Training	Gateway and scheduling 3 components	Industry context 'Trade Test'	Technical Interview	Behaviour and Progress Final Assessment	Quality assurance and final grading (By Energy & Environment Awards)	Apprenticeship Certificate (Claimed by Energy & Environment Awards)
Typically, 30 months	You have: Attended a Gateway meeting with your employer /provider. Achieved English and maths at level 2.	Time: comparable with time for a qualified craftsperson to complete activity. Environment reflecting hazards and risks of a real-time working environment. Employer-set. Tech. Expert.	No prescribed minimum/maximum time allowance. Under examination conditions. Face to face or remote as agreed. Tech. Expert.	Final 2 Behaviour and Progress Review assessments contribute to grade Tech. Expert.	Awarded Final Grading: Distinction, Pass or Fail.	ESFA will send your Certificate to your training provider or employer. Contact your training provider or employer if you do not receive your certificate.
		For further details see below*.				

*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 3 components that you must pass to be awarded a certificate.

Component 1: Industry Context 'Trade Test'

Overview

A 'trade test' involves a technical expert, appointed by Energy & Environment Awards observing and questioning you undertaking a set task or a series of set tasks in a simulated environment. The simulated environment must closely relate to your natural working environment. The task(s) must be capable of being completed by a competent Power Network Craftsperson.

Step-by-Step Guide

The table below provides a step-by-step guide on how the trade test will be carried out:

Structure of your trade test	The total assessment time is comparable with the time given to a fully qualified craftsperson to complete the activity when operating in a normal work environment. • Breaks may be taken during the practical assessment to allow you to move from one location to another and for meal/comfort breaks
Where will the assessment take place?	• Your employer's premises OR • in an environment that reflects the hazards and risks of a real-time working environment
What knowledge, skills and behaviours (KSBs) do I have to demonstrate during the practical	**Core Knowledge**: **CTK1** Electrical testing and the associated procedures needed to establish the condition of the plant, equipment, network and the actions needed as a result of the tests **CTK2** Electrical theories involved in the practical application of building and maintenance of electrical power networks

assessment with questioning?	**CTK3** Relevant electrical/mechanical principles and how they are applied in work processes and procedures **CTK4** Mathematical calculations used to support design, construction and ongoing operational maintenance activities related to power engineering **CTK5** Current Health, Safety and Environmental legislation and regulations applicable to work in the power sector **CTK6** Company rules, policies and procedures as defined by the employer **Core Skills**: **CS1** Work with focus and clear purpose in all weather conditions, covering 24/7 operations, sometimes working alone and safely adapt working methods to reflect changes in working environments **CS3** Use tools and equipment to construct and maintain electrical infrastructure across a range of voltages **CS4** Take personal responsibility for maintaining safety standards and achieving job objectives **CS5** Use a variety of appropriate communication methods to interact with others to give/receive information accurately, in a timely, positive and professional manner **CS6** Identify that something is wrong/likely to go wrong and the appropriate solution(s) within current expertise **CS7** Achieve individual and team tasks which align to overall work objectives, be self-motivated and disciplined in the approach to work tasks **CS8** Prepare and sequence equipment and tasks in a certain order to a specific rule(s) **CS9** Undertake standby duties to provide 24 hour cover to the network in fault situations requiring diagnostic testing procedures to analyse and calculate system parameters and rectification procedures

	Core Behaviours: **CB1** Work well with people from different trades/disciplines, backgrounds and expertise to accomplish an activity safely and on time and meet customer requirements **CB2** Deliver a polite, courteous professional service to all customers and members of the public **CB3** Be risk aware showing the desire to reduce risks through systematic monitoring & checking information and the strict compliance with appropriate rules, demonstrating: **CB4** Situational Awareness - the impact of changing circumstances on an activity **CB5** Concentration on task – identify and deal appropriately with distractions to enable tasks to be achieved **Specific Skills Overhead Lines:** **OL1** Adhere to safety practices and procedures, carry out risk assessments and checking the structures to be climbed and the working conditions while working at height **OL2** Carry out excavations, erect wood poles, steel towers and install their support mechanisms, **OL3** Climb poles and steel towers to install, maintain, test, repair and dismantle overhead line plant and equipment safely at height Use electrical theories and principles to use test equipment for voltage, current and earth resistance testing to maintain the integrity of the network **OL4** Consult design specifications to tension and terminate conductors, erect and assemble steel work and fittings **OL5** Install and connect electrical transformers, switchgear, circuit breakers and other associated equipment **OL6** Drive vehicles equipped with tools and materials to job sites including mobile elevated work platforms*

	OL7 Apply mechanical knowledge to use winches, drum handlers, pull lifts, tirfors and tensioning devices **OL8** Carry out electrical switching procedures on high and low voltage networks, operating switchgear, fuses and making and breaking live conductor connections **OL9** Organise and control work teams to carry out maintenance operations on overhead line plant and apparatus **Specific Skills Underground Cables:** **UC1** Adhere to safety practices and procedures, carry out risk assessments, check the condition of excavations and install and maintain barrier systems to protect the work area **UC3** Use electrical/mechanical knowledge to joint and terminate a range of cable sizes and types of joints using cable connectors across both Low and High Voltage cables networks to design specifications **UC5** Use technical knowledge to operate electronic location equipment to identify and locate underground cables **UC6** Use electrical theories and principles to carry out fault diagnosis on underground cable networks **UC7** Drive vehicles equipped with tools and materials to job sites and operate powered ground breakers* **UC8** Carry out electrical switching procedures on low voltage networks, operating switchgear, links and making and breaking live conductor connections **UC9** Organise and control the resources required to carry out the installation of cables, joints and link boxes **Specific Skills Substation Fitting:** **SF1** Adhere to safety practices and procedures, carry out risk assessments, check the condition of the work site **SF2** Use electrical/mechanical knowledge and skills to install, maintain and dismantle a wide variety of high voltage plant and

	apparatus including transformers, switchgear, cable terminations and other associated equipment. **SF3** Build and install high voltage substations safely in both urban and rural locations **SF4** Use technical knowledge to carry out substation inspections, condition monitoring and reporting **SF5** Apply electrical theories and principles to use electronic equipment to carry out diagnostic fault finding procedures **SF6** Maintain sub-station transformers and switchgear by replacing insulating oils and other insulating mediums **SF7** Inspect and maintain substation earthing, security equipment, telecommunication devices and alarm systems **SF8** Drive vehicles equipped with tools and materials to job sites including using mobile elevated work platforms* **SF9** Carry out electrical switching procedures on high and low voltage networks, operating switchgear, fuses and carrying out live working operations *Where applicable **For amplification and guidance refer to the PNC Specification. A link to the PNC Specification is available on page 9.**
What tasks will I have to cover?	The task(s) must allow you to undertake the activities required for a trade test. For further details refer to 'Knowledge, Skills and Behaviours (KSBs) Coverage' in the specification, refer to link on page 9.
What resources can I use?	You are expected to use resources that would be available to you in your work place. Equipment and resources needed for the observation must be: • provided by your employer or training provider • a suitable premises • the plant, machinery, equipment and PPE required for the job

	• in good and safe working condition Relevant work instructions/manuals must be available for you to use in hard copy or electronically.
How many questions will I be asked?	The technical expert will ask questions where competence is not confirmed through observation of natural performance. They may ask questions to follow up in order to seek clarification from you.
Who will assess me?	A technical expert, approved by Energy & Environment Awards.
Provisional Grading	The technical expert will award a provisional grade. You must pass **ALL** the pass criteria in order to achieve a pass.
Overall grading for this component	Fail or Pass

Practice Component 1: Industry Context 'Trade Test'

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

Component 2: Technical Interview

Overview

The technical interview must take place in the final month of your apprenticeship and must be completed after you have successfully completed the trade test.

The technical interview is designed to meet the requirements of the PNC Standard – Level 3 and will be conducted as a minimum by one technical expert who has not been involved in your trade test. It is to allow you to demonstrate how you have met the KSBs in order to carry out your occupational role as a Power Network Craftsperson effectively and safely. The interview allows for testing of responses where there are a range of potential answers.

Step-by-Step Guide

The table below provides a step-by-step guide on how the technical interview will be carried out:

Who will assess me?	1 technical expert, approved by Energy & Environment Awards will assess you under examination conditions.
How will the interview be organised?	**Locations:** Your interview will take place at your employer's premises or a suitable venue. **Time:** There is no prescribed minimum/maximum time allowance for the interview. **Your interview will be:** • a discussion between you and the technical expert • face to face or remote, as agreed • assessed and outcomes will be recorded by the assessor • recorded using the relevant technology such as Microsoft Teams or an audio recording device
What topics will I have to cover?	'For further details refer to 'Knowledge, Skills and Behaviours (KSBs) coverage in the PNC (Overhead lines; Underground Cables and Substation Fitting) Specification on page 35. **A link to the PNC Specification is available on page 9.**

How many questions will I be asked?	• There are no prescribed minimum/maximum number of questions. • Follow-up questions may be asked to seek clarification
Provisional Grading	The technical expert will award a provisional grade. You must pass **ALL** the pass criteria in order to achieve a pass.
Overall grading for this component	Fail or Pass

Practice Component 2: Technical Interview

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

Component 3: Behaviour and Progress Final Assessment

Overview

The Behaviour and Progress Review form has been devised to support your reviews as you progress through your apprenticeship. It allows you to understand:

- the behaviours required of you
- your actual performance
- any actions required.

The form should be used, regularly, from the beginning of your apprenticeship. Energy & Environment Awards require documentary evidence from the last two Behaviour and Progress Reviews, conducted during EPA in the final six month period of your apprenticeship.

Step-by-Step Guide

The table below provides a step-by-step guide on how the Behaviour and Progress Review (B&P Review) will be carried out:

Who will assess me?	1 technical expert, approved by Energy & Environment Awards will assess your final two reviews.
How will the B&P Reviews be organised?	**Locations:** Your B&P Reviews will take place at your employer's premises or a suitable venue. **Time:** There is no prescribed minimum/maximum time allowance for the B&P Review. **The last two B&P Reviews will be:** • a discussion between you and the technical expert • face to face • assessed and outcomes will be recorded by the assessor
What topics will I have to cover?	The B&P Reviews will cover the following themes: • Health and Safety and risk assessment • Working with others

<table>
<tr><td></td><td>

- Interpersonal skills
- Practical knowledge
- Practical skills
- Quality of work

For amplification and guidance refer to the PNC Specification:

https://energyenviromentawards.co.uk/epa/power-network-craftsperson/
</td></tr>
<tr><td>How will the B&P Review be scored?</td><td>

Each theme is scored in a range of 1 to 5

Each level is further divided by plus or minus, i.e. if you demonstrate behaviour that veers towards the next level, then the ‘plus’ column or ‘minus’ column of the next level of behaviour could be used.

Where levels 4 or 5 are appropriate, you are expected to have provided suitable evidence to substantiate the level awarded.

<table>
<tr><td>Behaviour 2</td><td>+</td><td>5</td><td>-</td><td>+</td><td>4</td><td>-</td><td>+</td><td>3</td><td>-</td><td>+</td><td>2</td><td>-</td><td>+</td><td>1</td><td>-</td></tr>
<tr><td>Working with Others</td><td colspan="3">Develops positive relationships with individuals to support specific issues</td><td colspan="3">Effectively contributes to team success, and suggests valid ideas</td><td colspan="3">Respects the needs and contribution of others both inside and outside of the team</td><td colspan="3">Holds back from contributing to team success</td><td colspan="3">Refers to working with others in negative terms and prefers to ‘go it alone’</td></tr>
<tr><td colspan="16">Assessment Justification</td></tr>
</table>

</td></tr>
<tr><td>Provisional Grading</td><td>

The technical expert will award a provisional grade.
To achieve a Pass the B&P Review should show satisfactory performance across the six categories in the final six-month end-point assessment period.
To achieve a Pass the B&P Review should show a minimum of 40% of performance at level 5 and the remainder no less than level 4 in the final six-month EPA period.
A Fail will be recorded if the B&P Review shows poor performance across the six categories in the final six-month EPA period and/or you are subject to a company disciplinary procedure.
</td></tr>
<tr><td>Overall grading for this component</td><td>Fail, Pass or Distinction</td></tr>
</table>

Practice Component 3: Behaviour and Progress Reviews

You will have Behaviour and Progress Reviews throughout your apprenticeship. Each review should be completed at the end of each training module and/or every 12 weeks.

Reviews undertaken during your training should be completed by as many appropriate staff as possible. Those who will typically complete it may include:

- Trainers
- Assessors
- Line managers
- HR
- Mentor
- Craftsperson assigned as the 'industry expert'.

Each person should indicate the appropriate levels of behaviour displayed by you and provide you with feedback. You should be given the opportunity to comment on the feedback on your performance.

Overall grading

All assessment components contribute equally to your overall EPA grade.

Grades from individual assessment components will be combined in the following way to determine your overall EPA grade as a whole.

Trade Test	Technical Interview	Behaviour and Progress Review	Overall grading
Fail in any component			Fail
Pass	Pass	Pass	Pass
Pass	Pass	Distinction	Distinction

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) must be re-sat or re-taken within the 2 months of the fail notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 4 months of the EPA outcome notification.

Failed EPA methods 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.

Additional Behaviour and Progress Reviews will not be offered to you if you wish to move from Pass to a Distinction.

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

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

Technical expert – Will holistically assess the knowledge, skills and behaviours (KSBs) that you have been taught throughout the apprenticeship. Their role as a technical expert would involve assessing components 1 (Industry Context 'Trade Test'), 2 (Technical Interview) and 3 (Behaviour & Progress Review)

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

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

Options / Pathways – a specialist route within an occupational standard that builds on the occupational competence for a new entrant to the occupation

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 Institute for Apprenticeships & Technical Education current criteria. For further details refer to:
https://skillsengland.education.gov.uk/apprenticeship-standards/st0156-v1-1

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