

End-point Assessment

Apprentice Guidance Document for:

Level 6 Product Design and Development Engineer

Standard Reference: ST0027

Contents

| | |
|--|-----------|
| Overview..... | 3 |
| End-point Assessment (Gateway) Requirements..... | 4 |
| Guidelines for Method 1 Case Studies Presentation..... | 4 |
| Annex A - End-Point Assessment Methods Mapping..... | 18 |
| Annex B – Grading Criteria - Method 1 and Method 2..... | 20 |
| Annex C – Apprentice Recording Template..... | 24 |

Document Amendments

| Amendment Made | Issue Number | Effective From |
|-------------------|--------------|----------------|
| New document | 1.0 | 01.2020 |
| Updated documents | 2.0 | 05.2020 |
| Updated documents | 2.1 | 01.2021 |

Apprentice Guidance for Case Studies Presentation, Occupational Professional Discussion and the End Point Assessment Grading

Overview

The end-point assessment is designed to enable you to demonstrate that you are fully conversant in the skills, knowledge and behaviours expected of individuals working at this level. It is designed to provide assessors with a holistic view of the apprentice, and to allow them to assess to what extent that you meet or exceed the level 6 Product Design and Development Engineer Apprenticeship standard.

What is being assessed?

Your End Point Assessment is made up of **two** elements:

- **Method 1.** Case Studies Presentation underpinned by supporting evidence
- **Method 2.** Occupational Professional Discussion underpinned by supporting evidence

Readiness for the End-point Assessment (Gateway)

The independent end-point assessment is synoptic, as it takes an overview of your occupational competence. It is important, therefore, that this should only take place when the employer is confident that you have met all the knowledge, skills and behaviours as set out in the standard and is performing competently in your job role.

Readiness for end-point assessment is confirmed once the employer is satisfied that you have demonstrated occupational competence against all the knowledge, skills and behaviours specified in the standard, completed the occupational competence report of evidence and achieved the mandated qualifications.

- Employer specified BEng/BSc degree and accredited by an Engineering Council licenced Professional Engineering Institution (PEI). Employers may wish to use a degree that has yet to achieve PEI accreditation. However, if the intention is to do so, a PEI must have been involved and consulted on the content from the outset.
- Level 2 in English and mathematics. (For those with an education, health and care plan or a legacy statement the English and mathematics minimum requirement is Entry Level 3 and British Sign Language qualifications are an alternative to the English qualifications for whom this is their primary language).
- The apprentice can then progress to the end-point assessment via the apprenticeship gateway (decision point).

EAL as the EPAO will check the gateway information as a pre-requisite prior to the EPA taking place

Guidelines for Method 1 Case Studies Presentation

The Case Studies Presentation will give you the opportunity to identify specific and exemplar work-based projects/tasks that you have successfully completed that will allow you to showcase and demonstrate the practical application of the knowledge and skills and behaviours detailed in the standard and set out in **Annex A**. The Case Studies Presentation will be followed by a question and answer session led by the designated end-point assessor.

The Case Studies Presentation covering work-based projects/tasks should meet the following criteria:

- Based on a projects/tasks designated by your employer such as your line manager or departmental team leader/supervisor and within scope of the role of a Product Design and Development Engineer.
- The Case Studies Presentation and supporting evidence must be based on projects/tasks from the on-programme period and be available prior to the gateway to allow the employer to authenticate its content.
- Supported by relevant evidence and/or documentation such specific work outputs, work records or other documentation including any quality/compliance data/records produced as part of the work activity.
- Cover, where applicable any issues, challenges or problems encountered and present your ideas/solutions.
- Where the **work-based** projects/tasks involved team input/activities your employer must authenticate your work as part of the gateway and confirm the Case Studies Presentation and supporting evidence is an accurate reflection of your involvement.
- States and provides evidence how the **work-based** projects/tasks outcomes were completed to the required standard in order to be able to claim that the relevant knowledge, skills and behaviours have been achieved. Covers the knowledge, skills and behaviours listed in **Annex A** as being assessed by the Case Studies Presentation.
- You must make sure the presentation and supporting evidence is available throughout the duration of the Case Studies Presentation so that it can be referenced during the presentation and subsequent questioning by the end-point assessor.
- You should have a minimum of **two** weeks' notice of your Case Studies Presentation date and time.
- The Case Studies Presentation is expected to be **50 +/- 5** minutes in duration. The Case Studies Presentation will be followed by a question and answer session which will be **25 +/- 5** minutes in duration. The question and answer session will provide the opportunity for the end-point assessor to seek clarification and probe for further detail/evidence as required.
- EAL as the EPAO develop a bank of core questions which can be used and contextualised by the end-point assessor during the Case Studies Presentation. The end-point assessor will also develop their own specific and targeted questions after reviewing the presentation and supporting evidence to further explore competence against the knowledge, skills and behaviours specified in the standard. EAL as the EPAO will use a structured template for the end-point assessor to use during the presentation, to provide robustness, consistency and fairness with a clear and auditable mechanism for providing feedback to the apprentice.
- The grade criteria for achieving a Fail, Pass or Distinction in the Case Studies Presentation is itemised in **Annex B**.
- The Case Studies Presentation can be recorded (audio or video) if all parties are in agreement. Where permission is not given it is permissible for another end-point assessor to be present to scribe/document evidence presented and record the response to questions. Where a second end-point assessor is used to act as a scribe they must not be involved in any assessment decision and must be independent i.e has had nothing to gain from the outcome of the assessment and has had no direct involvement in the day to day training and development of the apprentice during the on-programme phase of apprenticeship.
- The Case Studies Presentation will be conducted face to face or via live video link (where a live video link is used EAL as the EPAO must guarantee the integrity of the assessment process).

- The Case Studies Presentation will be conducted in a 'controlled environment', i.e. a quiet room, away from the normal work area.
- It is recommended that there will need to be a break of **45 +/- 5** minutes between the Case Studies Presentation and the Occupational Professional Discussion to allow the end-point assessor to record notes and make the assessment decision. It will also allow you and the end-point assessor to prepare for the Occupational Professional Discussion.
- You will be informed of the end-point assessor's overall assessment/grading decision as soon as possible after both assessment methods have been completed. This may be after EAL as the EPAO has moderated the decisions made by assessors.
- A technical expert from the employer can attend the Case Studies Presentation if they are requested to do so by EAL as the EPAO in order to provide the end-point assessor with any relevant technical support, advice and guidance such as confirming company policies, procedures, processes, providing context on technical information or on emerging technologies. Any information provided by the employer technical expert must only be at the request of the end-point assessor who has the final say over the assessment and grade awarded. The employer technical expert must not provide evidence on behalf of you.

You must record your presentation on the Template provided by your employer to ensure all Knowledge, Skills and Behaviour requirements have been met.

Alternatively, you can use your own presentation templates, but you must ensure the same criteria have been met:

- EAL L6 PDD Apprentice Presentation Template

Apprentice Guidance for Work Based Projects/Tasks Supporting Evidence On-Programme Period Occupational competence report

Each employer will have their own preferred approach and layout of the occupational competence report. How you present the information to your employer for the End Point Assessment occupational competence report review is important to ensure it meets that requirement of the standard. After all, you are using this Occupational competence report to showcase your skills, knowledge and behaviours you have learnt during your apprenticeship, so presenting a good quality record of your day-to-day work you have completed.

You will compile an occupational competence report during your apprenticeship. It will include evidence of experience gained in the workplace and simulated environments, collectively demonstrating competence against all aspects of the apprenticeship standard – skills, knowledge and behaviours. It may for example include self-assessments, achievement logs, work products, witness statements and reflective journals, together with a final progress review in readiness for the EPA final professional discussion and presentation.

Before beginning work on the occupational competence report, you should agree, in a meeting with your employer and mentor. The on-programme period will provide a focus for your occupational competence report of evidence. The occupational competence report will be reviewed by the end point assessor, using standardised assessment criteria and documentation, recording coverage against the learning areas. This will be used to support the EPA professional discussion and presentation. The occupational competence report will be reviewed before the EPA professional discussion and presentation.

Planning Work to Meet Evidence Requirements

When planning your work with your employer you should ensure that there is suitable opportunity for you to be involved in projects with a broad enough scope to address the chosen learning areas, and that you will be able to evidence the relevant skills, knowledge and behaviours expected.

It is the responsibility of your employer and your apprenticeship mentor (where appropriate) to help guide you in choosing appropriate evidence for the occupational competence report. The training provider will provide a framework for the occupational competence report and provide initial guidance on how to assemble evidence.

The occupational competence report of evidence will need to include self-assessments and achievement logs completed by you as part of regular performance management with your employer, as well as any relevant supporting documents. The occupational competence report will contain examples of your performance in relation to the work you have completed. The occupational competence report evidence will be recorded during the whole of your apprenticeship to meet the level of demand and complexity required by the standard and will include a detailed record of how you completed the task. Your occupational competence report can be handwritten or electronic and include work products, sketches and information you feel appropriate.

Here are some key features you may wish to include in your occupational competence report to help you construct a consistent approach and layout. You can place them in the logical structure appropriate for your job.

- Front page – Your company name, your name, the title of the apprenticeship
- Index of occupational competence report
- A cross reference to the specific Apprenticeship Standard
- List of witnesses/job titles
- Page heading - job reference /title and date of task
- Subheadings

An example template is provided in **Annex C OR Alternatively you can use one of your own design, but as a minimum you must ensure all fields listed in the example template Annex C are met.**

Finally, you should ask your mentor to review and check your work and sign it along with any witnesses who can authentic this is a true record of the work you carried out.

Occupational competence report submission

Your occupational competence report will be used as supporting evidence for Method: 1 Presentation and Method: 2 Report for the Professional discussion. The end point assessor will review your occupational competence report of evidence during these assessment Methods. The end point assessor through questioning will explore your understanding of the chosen competence areas.

EAL as the EPAO will agree a date with you when all supporting evidence must be submitted.

Occupational competence report Review

This is a standard occupational competence report review against the learning areas contained in the assessment plan. Details of the learning areas can be found in **Annex A**.

The end point assessor will review the completed holistic examples of performance presented in the apprentice occupational competence report. The evidence must cover the learning areas contained within the assessment plan. Each example should be judged to ensure that the evidence is authentic to you, as the apprentice, there are sufficient examples of performance presented in the occupational competence report and the evidence is reliable from a real working environment.

Where the end point assessor identifies shortfalls in the skills, knowledge and behaviours assessment of the occupational competence report review, they must prepare further questions to ask you during the professional discussion to ensure you can demonstrate that you have the required depth and breadth of skills, knowledge and behaviours required by the apprenticeship standard.

The end point assessor can request to have a representative of the employer present, but this not mandatory. The role of the employer is to provide operational context, clarification and guidance, **NOT** to make assessment decisions. That is the role of the end point assessor from EAL as the EPAO.

Apprentice Guidance for EPA Case Studies Presentation Preparation

What will happen?

Your occupational competence report will be used as supporting evidence for your Presentation. This will take place on the same day as your professional discussion. Overall, this should last at least **50 +/- 5** minutes in duration. You will deliver your presentation first and should then be offered the opportunity of a short break before starting your professional discussion. If you are not offered a break, please ask for one if you feel you need it. If you want to continue straight on, just let your end point assessor know.

Your Presentation

Your presentation should be designed to complement your on-programme period of evidence and should add to the evidence that you presented under those learning outcomes. You may want to explain a situation in more depth or highlight a particular situation or project which was complex and difficult to portray in a paper/electronic occupational competence report. The most important thing to remember is that this is an opportunity to showcase what you have learned and achieved during your apprenticeship.

You may want to present learning areas which you found difficult to evidence in your occupational competence report and which you feel you can evidence more easily verbally. The content is up to you. You can seek guidance from your training provider, mentor, and employer but the work must be all your own. If you need any special equipment in order to deliver your presentation, you will need to supply it yourself or you could ask if it will be available in the room anyway but this will need to be established prior to the assessment day.

You may well be asked questions on what you are presenting. These will just be for clarity and to make sure that the Independent Assessor fully understands what you are trying to portray. Your employer/nominated representative may be present at the EPA by request of the end point assessor, but they are there simply to offer advice and guidance to your Independent Assessor and will have no part in marking your presentation.

When you are putting your presentation together you could consider the following that you may want to convey and/or your assessor could ask you during the question and answer session.

Please note this is for guidance purposes only

K5 How to undertake and apply business-led projects

Pass

- Why a project approach would be the most suitable approach for the work activity undertaken
- How to agree the project purpose, objectives & outcomes
- How to agree deliverables and associated benefits
- How to determine what is in and out of project scope
- How to identify stakeholders & their interests in the project
- How to provide a breakdown of expected cost/ resource requirements
- How to Identify key roles and responsibilities for project work activity
- How to outline the interdependencies of other work activities that have a relationship to delivery of the project
- How to produce a robust project plan
- How to identify and log any risks/issues including any mitigation

Distinction

- How to lead a project to successful completion
- How to monitor / review progress against checkpoints or gateways
- How to assess how project changes impact others
- How to balance ongoing timing, quality, cost and delivery consideration
- How to amend project plans where changes are needed
- How to communicate changes successfully

K6 - Engineering operations and business management

Pass

- How to contextualise the range of business activities that are required during a cycle of design and development.
- How to detail engineering methods that relate to activities in own area of responsibility
- How to obtain data/ details of engineering requirements from company information systems
- Who to contact for clarification of engineering requirements and who should authorise specific activity?
- How to detail quality focussed activity associated with product design and development
- How to determine relevant reporting procedures, documentation and application relevant to their role
- How to interpret drawings, specs, charts, data manuals related to own area of responsibility

Distinction

- How business activities can be applied to predict/ resolve potential problems

K7 Applying advanced technology techniques

Pass

- Explain the application of advanced technological techniques in their specific area of responsibility
- How advanced technological activities relate to each other in product design and development
- How to interpret associated company policy/procedures relevant to the technologies used within their occupation
- Explain the extent of own responsibility and to whom they should report if they have issues that they cannot resolve in relation to the technology being applied

Distinction

- How Identify how advanced technological techniques can help minimise the potential for disruption associated with the introduction of new products.
- Explain how advanced methods/techniques can help with dealing with engineering problems should they arise during new product development

S1 Comply with statutory and organisational safety requirements

Pass grade only

Applied skills in demonstrating a compliant, disciplined and responsible application of Health and Safety requirements including but not limited to;

- PPE regulations
- COSHH regulations
- Risk assessments, management and mitigation
- Accident/emergency procedures
- Fire/evacuation procedures
- Procedures for hazardous malfunctions
- Safely operating/using tools and equipment
- Lifting/carrying techniques

S3 Organising work efficiently and effectively by managing engineering resources when completing tasks

Pass

- Constructing appropriate SMART Objectives
- Producing work plans for own area of responsibility
- Monitoring progress and quality of outcomes of the engineering resources
- Evaluating progress and providing feedback towards the completion of tasks
- Reviewing and amending plans if necessary, to complete the tasks

Distinction

- Taking a leading role in the management of the engineering resources
- Identifying and securing upfront the skill bases and resources required
- Demonstrating advanced communication methods to team/stakeholders
- Leading in the monitoring and subsequent outcomes of associated resources

S4 Use computer software packages to assist with engineering activities

Pass

- Obtaining design data for verification
- Using appropriate equipment hardware/software
- Running computer package and evaluate
- Identifying any potential risks or problems
- Presenting results of verification exercise
- Recording of information
- Regulation compliance

Distinction

- Establishing design concepts for the collection of data
- Constructing methods for creation of computer models
- Establishing key criteria for verification of design performance

S5 Carry out Project Management activities

Pass

- Why a project approach was the most suitable approach for the work activity undertaken
- Agreeing the project's purpose, objectives & desired project outcomes
- Agreeing deliverables and associated benefits
- Determining what is in and out of project scope
- Identifying stakeholders & their interests in the project
- Providing a breakdown of expected cost/resource requirements
- Identifying key roles and responsibilities for project work activity
- Outlining interdependencies of other work activities that have a relationship to delivery of the project
- Producing a robust project plan
- Identifying and logging risks/issues including any mitigation

Distinction

- Leading a project to successful completion
- Monitoring / reviewing progress against checkpoints or gateways
- Assessing how project changes impact others
- Balancing ongoing timing, quality, cost and delivery considerations
- Amending project plans where changes are needed
- Communicating changes successfully

S9 Demonstrate technical and commercial management by planning and managing tasks and resources

Pass

- Obtaining and reviewing task/ resource information using a range of methods
- Consulting on tasks / resources with relevant people
- Planning and managing technical tasks/ resources

Distinction

- Leading Commercial Management awareness when planning and managing tasks/ resources including areas such as:
 - Basic cost analysis
 - Evaluating prices from contractors/ sub-contractors
 - Basic contract lifecycle management /sourcing
 - Relationship management/ document management

B1 Safety mindset

Pass grade only

Applied appropriate skills in demonstrating a compliant, disciplined and responsible application of Health and Safety requirements including but not limited to;

- PPE regulations
- COSHH regulations
- Risk assessments, management and mitigation
- Accident/emergency procedures
- Fire/evacuation procedures
- Procedures for hazardous malfunctions
- Safely operating/using tools and equipment
- Lifting/carrying techniques

B3 Logical approach

Pass

- The ability to structure a plan and develop activities following a logical thought process

Distinction

- The ability to quickly think on feet in a variety of situations

B4 Problem solving orientation

Pass

- Identifying engineering issues /problems quickly, enjoys solving problems and applies appropriate solution

Distinction

- Taking the lead within the business area to solve problems

B5 Quality focus

Pass

- Demonstrating the **required level** of quality focus and follows the rules, procedures and principles

Distinction

- Playing a lead role in quality focus and assisting others in following the rules, procedures and principles

B7 Clear communicator

Pass

- Demonstrating open, honest and clear communication.

Distinction

- Demonstrating a wide range of communication methods including always listening to others with a respectful and positive attitude

B8 Team player

Pass

- Making an effort to integrate with a team, taking personal responsibility and supporting other people in a professional manner
- Understanding and considering implications of own actions on other people/activities

Distinction

- Demonstrates leadership capabilities across teams

B9 Applies lean manufacturing principles (continuous improvement)

Pass

- The application of lean and continuous improvement manufacturing principles

Distinction

- Leading and drives effectiveness and efficiency



Points to note:

- All the KSBs (Knowledge, Skills and Behaviours) listed above must be covered in the presentation
- Each KSB must be referenced to the occupational competence report of evidence
- The statements supporting each KSB are to provide some guidance/scope against the specific KSB criteria

Guidelines for Method 2 Occupational Professional Discussion

Prior to the end-point assessment you will produce an occupational competence report that sets out how you have achieved occupational competence in each of the following Knowledge, Skills and Behaviours (KSBs) as set out in **Annex A: K1, K2, K3, K4, S1, S2, S6, S7, S8, B1, B2, B6, B10, B11, B12 and B13**. The occupational competence report for each of the KSBs should not exceed **250** words, **4000** words for the total report. The occupational competence report will make reference to supporting evidence which will be used during the Occupational Professional Discussion. The occupational competence report and supporting evidence must be based on examples from the **on-programme period** and be available prior to the gateway, to allow the employer to authenticate its content.

The Occupational Professional Discussion is an interactive process, which will enable the end-point assessor to further assess your occupational competence. It is a structured and formal discussion between you and the end-point assessor, drawing upon your occupational competence report and supporting evidence/documentation of how you have performed during the apprenticeship when undertaking employer directed work-based projects/tasks during your apprenticeship.

EAL as the EPAO will develop a bank of core questions which can be used and contextualised by the end-point assessor during the Occupational Professional Discussion. The end-point assessor will also develop their own specific and targeted questions after reviewing the occupational competence report and supporting evidence to further explore competence against the knowledge, skills and behaviours specified in the standard. EAL as the EPAO will use a structured template for the end-point assessor to use during the Occupational Professional Discussion, to provide robustness, consistency and fairness with a clear and auditable mechanism for providing feedback to the apprentice.

The requirements for the Occupational Professional Discussion are:

- It covers the knowledge, skills and behaviours listed in **Annex A** as being assessed by the Occupational Professional Discussion.
- You should have a minimum of **two** weeks' notice of the date and location of the Occupational Professional Discussion.
- The Occupational Professional Discussion will be **90 +/- 5** minutes in duration.
- You must make your occupational competence report and supporting evidence available throughout the duration of the Occupational Professional Discussion so that it can be referenced during the discussion and subsequent questioning by the end-point assessor.
- The Occupational Professional Discussion will be conducted face to face or via live video link (where the EAL as the EPAO have the facilities available and can guarantee the integrity of the assessment).
- The Occupational Professional Discussion will be conducted in a 'controlled environment', i.e. a quiet room, away from the normal work area.
- The Occupational Professional Discussion can be recorded (audio or video) if all parties are in agreement. Where permission is not given it is permissible for another end-point assessor to be present to document evidence presented and record the response to questions. Where a second end-point assessor is used to act as a scribe they must not be involved in any assessment decision and must be independent i.e. has had nothing to gain from the outcome of the assessment and has had no direct involvement in the day to day training and development of the apprentice during the on-programme phase of apprenticeship.
- A technical expert from the employer can attend the Occupational Professional Discussion if they are requested to do so by EAL as the EPAO in order to provide the end-point assessor with any relevant technical support, advice and guidance such as confirming company policies, procedures, processes, providing context on technical information or on emerging technologies. Any information provided by the employer technical expert must only be at the request of the end-point assessor who has the final say over the assessment and grade awarded. The employer technical expert must not provide evidence on behalf of you.

- The grade criteria for achieving a Fail, Pass or Distinction in the Occupational Professional Discussion is itemised in **Annex B**.
- You will be informed of the end-point assessors overall assessment decision as soon as possible after both assessment methods have been completed. This may be after EAL as the EPAO has moderated the decisions made by assessors.

You must evidence your report on the Apprentice Report Template provided by EAL to ensure all Knowledge, Skills and Behaviours requirements have been met:

- EAL L6 PDD Apprentice Report Template

The end point assessor will complete the Method 1 and Method 2 recording documentation provided by EAL, to ensure all knowledge, skills and behaviours requirements have been met

Apprentice Guidance for EPA Occupational Professional Discussion Preparation

What is an EPA Occupational Professional Discussion?

The EPA Occupational Professional Discussion is an interactive formal discussion focussed on the skills, knowledge and behaviours you need for your job role. It will enable the endpoint assessor to ask questions of you in relation to your skills, knowledge and behaviours, based on your on-programme period occupational competence report of evidence. Questions will be standardised, so that essential knowledge can be demonstrated consistently by all apprentices.

It is a structured discussion between you and the end point assessor drawing upon an occupational competence report of evidence of how you have performed during the Apprenticeship. It covers both the tasks you have completed in your day-to-day work, the standard of your work and the behaviours you have demonstrated throughout, such as being a team player, having a positive attitude and a strong work ethic; being a responsible and self-motivated employee with a proven commitment to your organisation. This enables the EPA Professional Discussion to cover a broad range of skills, knowledge and behaviours set out in the apprenticeship standard.

It will also be an opportunity for the end point assessor to:

- Clarify any points and/or question you on the evidence you have presented in the occupational competence report
- Confirm and validate that the occupational competence report of evidence is your own work
- Confirm and validate the judgements about the quality of the work you have completed
- Explore particular areas of work presented in the occupational competence report, how it was carried out, any problems that you encountered and how these were resolved
- Validate your skills, knowledge and behaviours of the organisation in terms of their products, processes, procedures and information systems.

The EPA Professional Discussion will also find out the depth and breadth of your understanding of the learning areas requirements.

Who is involved within EPA?

EAL as the EPAO can request the employer/nominated representative to attend, they may come from within their own organisation or brought in if required from other employers/nominated representative or from the training provider, but one member will come from the EPA organisation. They will not have directly worked with you or participated in your learning and training. An IQA (Internal Quality Assessor) may also be present on the day for EPAO auditing purposes. The EPA members will have:

- Excellent knowledge and understanding of the apprenticeship standard
- The ability to contextualise the relevant **work-based** project(s)/task(s)
- Current, relevant occupational knowledge and expertise, at the relevant level of the occupational area(s) they are assessing, which has been gained through “hands on” experience in the profession within the last 5 years.

They will be ‘approved’ by EAL for the purposes of conducting the end-point assessment.

What preparation is needed for the EPA Occupational Professional Discussion?

Every EPA Occupational Professional Discussion is different, so it is not possible to know in advance exactly what the end point assessor will ask you. However, there are some common styles and approaches for this type of Professional Discussion that will help the end point assessor to assess your submitted occupational competence report. The examples you have submitted will be how you have performed your work activities and the EPA Professional Discussion will be your opportunity to show case all your skills, knowledge and behaviours. This will be the main focus during the assessment. However, you should also plan for wider questioning about your apprenticeship and what you have learned, how you have used the skills, knowledge and behaviours gained and applied this learning in your work.

It is not a memory test and you can prepare notes making reference to your occupational competence report so you may want to do this as your planned approach and have your notes with you during the Professional Discussion.

Having spent so much time developing your occupational competence report of evidence to showcase your skills, knowledge and behaviours to your employer, it may seem strange to hear that a key part of your preparations is to get to re-cap on what you have submitted in your occupational competence report. The end point assessor will expect you to have a good understanding of the contents of your work and that means knowing your on-programme period occupational competence report so you can discuss the content with minimum notes, after all you performed the tasks.

Here are some ideas to help you prepare for your EPA Professional Discussion.

- Make notes to remind you of key points you need to remember and flag pages in your occupational competence report where you may need to refer for detailed information. Practice using this method to ensure any reference you give is correct.
- Who are you? Think bigger picture. What do you know about your organisation? What do you do in your organisation? Who do you report to and interact with? Where do you sit within your organisation? How important is your work to you and your organisation? What would happen if you didn’t do your job?
- Develop an introduction of yourself, what you do and the apprenticeship journey you have taken to get to where you are.
- Read through each example and think about the key features of how you do your job and the behaviours you have demonstrated. It is likely the questions from EPAO/Independent Assessor will probe stages of your approach to your work, the behaviours you have adopted to ensure it follows a logical sequence in a safe, effective and efficient manner in line with the expected organisational procedures. If you think you missed details or made a mistake during your own review of your occupational competence report, don’t panic. Make a note, build it in to your showcase and prepare an answer that you can use if it is questioned during the EPA Professional Discussion.
- Work with your mentor to build your evidence against the apprenticeship standard and what is required for the standard and how your evidence meets those requirements. Your EPA Professional Discussion will find out your depth and breadth of understanding of the competence requirements.
- Be clear when discussing your work in the context of what you did. Think about including ‘I’ instead of ‘We’.
- For example; ‘I was responsible for.....’ and when discussing working in a team be clear in defining what your contribution was and the work elements you completed.
- Practice showcasing examples of your work to yourself and then with others who are not involved in the EPA Professional Discussion to gain confidence. Ask them to challenge you with questions.

- Make a list of what you need for your EPA Professional Discussion and check it off before you arrive to ensure you have all you need for a successful Professional Discussion.

What happens during the EPA Professional Discussion?

- Be prepared.
- Be well presented, you should at least be well groomed and neatly dressed.
- Stay calm and pleasant.

Your end point assessor will cover some preliminary generic items such as; introductions, the approach and timings of the EPA Professional Discussion as well as your right to appeal, in the event that you feel the final decision is not appropriate.

A series of questions will be put to you to answer and notes will be recorded by the end point assessor, For example:

- Talk us through.....
- Explain in detail.....
- Describe.....
- Give an example.....
- Demonstrate.....
- Where do you find.....
- How did you.....
- What was the objective.....
- Why did you.....

Listen carefully to the questions. Don't answer simply 'yes' or 'no' to questions; on the other hand, do not give a prepared speech. Try to answer the question as it is put to you. If you don't understand the question, ask the end point assessor to repeat it or repeat your interpretation to the end point assessor. If you still don't understand the question, then it is better to admit it than to try and bluff.

Don't be overly worried that some parts of the EPA Professional Discussion were really difficult; it is only by pushing you to your limits that the end point assessor can determine your ability.

At the end of the assessment you will be informed the EPA Professional Discussion is over.

Collect your papers and any items you prepared and breathe – well done you have just completed your EPA Professional Discussion.

Guidelines for Grading the Case Studies Presentation and Occupational Professional Discussion

There are **two** assessment components, which are managed by the End-Point Assessment Organisation. These are:

| Assessment Component | Weighting | Conducted by whom | Grading Outcomes |
|---|-----------|-----------------------------------|--------------------------------------|
| Method 1. Case Studies Presentation | 50% | End-Point Assessment Organisation | 1. Fail 2. Pass 3. Distinction |
| Method 2. Occupational Professional Discussion | 50% | End-Point Assessment Organisation | 1. Fail 2. Pass 3. Distinction |

- Assessment Methods 1 and 2 have been equally weighted and you must achieve a Pass in all Knowledge, Skills and Behaviours as a minimum requirement for the apprenticeship certificate to be awarded. A Fail in any Knowledge, Skills and Behaviours will mean that you will be offered a resit or re-take. **(Pg. 17)**
- See **Annex B** – End-Point Assessment Grading criteria and grade boundaries for the following grades Fail, Pass and Distinction.
- To be awarded a Distinction, you must achieve Distinction in at least 3 criteria in each of the Knowledge, Skills and Behaviours in both Assessment Methods

The end point assessor will complete the overall scoring and grading tables within the Assessment Recording Document provided by EAL

Confirmation of the outcomes will be sent to your employer and once agreed, EAL as the EPAO will submit your results and request your apprenticeship certificate.

Re-sits and Re-takes

Apprentices awarded a Fail in one or both assessment methods will be offered the opportunity to take a re-sit or re-take. See **Annex B** for the grade criteria for Methods 1 and 2. A re-sit does not require further learning, whereas a re-take does. In the case of a re-sit, little or no further work will be required on the Case Studies Presentation and supporting evidence (Method 1) and the occupational competence report and supporting evidence (Method 2). You should have an agreed action plan to prepare for the re-sit/re-take. If requested the employer can invite their Training Provider to be part of the development of any action plans for a re-take.

The employer determines when the end-point assessment re-sits/re-takes must be completed following the formal receipt from EAL as the EPAO that the apprentice has not passed either or both of the end-point assessment methods.

It will be the responsibility of the employer to determine the number of times the apprentice can re-sit/re-take the end-point assessment.

The maximum grade awarded to a re-sit/re-take will be **Pass**, unless EAL as the EPAO identifies exceptional circumstances accounting for the original grade of Fail.

Method 1. Case Studies Presentation.

| Grade Outcome | Re-sit/Re-take Criteria |
|-------------------------|--|
| Fail - Re-take required | A fail in B1, any Skill or in 2 or more of the Knowledge and/or Behaviours criteria |
| Fail – Re-sit required | A single fail in Knowledge or Behaviour criteria |

Method 2. Occupational Professional Discussion.

| Grade Outcome | |
|-------------------------|--|
| Fail – Re-take required | A fail in B1, any Skill or in 2 or more of the Knowledge and/or Behaviours criteria |
| Fail – Re-sit required | A single fail in Knowledge or Behaviour criteria |

Annex A - End-Point Assessment Methods Mapping

The following table provides an overview of the requirements detailed within the Level 6 Product Design and Development Engineer standard and where they are covered by each end-point assessment component.

| Ref | Knowledge – The apprentice must be able to demonstrate an understanding of: | Assessment Method |
|-----|---|--|
| K1 | Mathematics and science for engineers | Occupational Professional Discussion |
| K2 | Materials and manufacture | Occupational Professional Discussion |
| K3 | Mechanical, electrical and electronic principles and applications | Occupational Professional Discussion |
| K4 | Statics and dynamics | Occupational Professional Discussion |
| K5 | How to undertake and apply business-led projects | Case Studies Presentation |
| K6 | Engineering operations and business management | Case Studies Presentation |
| K7 | Applying advanced technology techniques | Case Studies Presentation |
| Ref | Skills – The apprentice must be able to: | Assessment Method |
| S1 | Comply with statutory and organisational safety requirements and demonstrate a responsible and disciplined approach to risk mitigation, avoidance and management. | Case Studies Presentation and Occupational Professional Discussion |
| S2 | Effectively use, interpret and evaluate a range of engineering data sources and documentation | Occupational Professional Discussion |
| S3 | Organise work efficiently and effectively by managing engineering resources when completing tasks | Case Studies Presentation |
| S4 | Use computer software packages to assist with engineering activities | Case Studies Presentation |
| S5 | Carry out Project Management activities | Case Studies Presentation |
| S6 | Establish design briefs, presenting and discussing technical proposals | Occupational Professional Discussion |
| S7 | Manage and control product design changes | Occupational Professional Discussion |
| S8 | Support team feasibility design reviews | Occupational Professional Discussion |
| S9 | Demonstrate technical and commercial management by planning and managing tasks & resources | Case Studies Presentation |

Annex A - End-Point Assessment Methods Mapping

| Ref | Behaviours – The apprentice must be able to demonstrate the following: | Assessment Method |
|-----|--|--|
| B1 | Safety mindset. The importance of complying with statutory and organisational health, safety and risk management requirements and the implications if these are not adhered to | Case Studies Presentation and Occupational Professional Discussion |
| B2 | Strong work ethic: Has a positive attitude, motivated by engineering; dependable, ethical, responsible and reliable. | Occupational Professional Discussion |
| B3 | Logical approach: Able to structure a plan and develop activities following a logical thought process, but also able to quickly “think on feet” when working through them. | Case Studies Presentation |
| B4 | Problem solving orientation: Identifies issues quickly, enjoys solving complex problems and applies appropriate solutions. Has a strong desire to push to ensure the true root cause of any problem is found and a solution identified which prevents further recurrence. | Case Studies Presentation |
| B5 | Quality focus: Follows rules, procedures and principles in ensuring work completed is fit for purpose and pays attention to detail / error checks throughout activities. | Case Studies Presentation |
| B6 | Personal responsibility and resilience: Motivated to succeed accountable and persistent to complete task. | Occupational Professional Discussion |
| B7 | Clear communicator: Uses a variety of appropriate communication methods to give/receive information accurately, and in a timely and positive manner. | Case Studies Presentation |
| B8 | Team player: Not only plays own part but able to work and communicate clearly and effectively within a team and interacts/ helps others when required. In doing so applies these skills in a respectful professional manner. | Case Studies Presentation |
| B9 | Applies Lean Manufacturing Principles: Demonstrates continuous improvement in driving effectiveness and efficiency | Case Studies Presentation |
| B10 | Adaptability: Able to adjust to different conditions, technologies, situations and environments. | Occupational Professional Discussion |
| B11 | Self-Motivation: A ‘self-starter’, who always wants to give their best, sets themselves challenging targets, can make their own decisions. | Occupational Professional Discussion |
| B12 | Willingness to learn: Wants to drive their continuous professional development | Occupational Professional Discussion |
| B13 | Commitment: Able to commit to the beliefs, goals and standards of their own employer and to the wider industry and its professional standards. | Occupational Professional Discussion |

Annex B – Grading Criteria Method 1 & Method 2

| Grading Criteria - Method 1 – Case Studies Presentation | | | | |
|---|--|--|--|--|
| Ref | Descriptors | Fail Criteria F | Pass Criteria P | Distinction Criteria D |
| K5 | How to undertake and apply business-led projects | Knowledge insufficient to effectively contribute to business led projects | Contributes knowledge of project management to business led design and development projects | And... <u>understands</u> how to lead a project balancing timing, quality, cost and delivery considerations |
| K6 | Engineering operations and business management | Grasp of engineering operations and business management activities is vague | Understands and can contextualise the range of core business activities required during a cycle of design and development. | And... explains how these can be applied to predict / resolve potential problems |
| K7 | Applying advanced technology techniques | Does not demonstrate required knowledge of appropriate technological techniques | Demonstrates knowledge of advanced engineering techniques application within a design and development context | And ...identifies how advanced techniques minimise the potential for disruption or solve engineering problems |
| S1 | Comply with statutory and organisational safety requirements and demonstrate a responsible and disciplined approach to risk mitigation, avoidance and management | Does not demonstrate compliance with statutory and organisational safety requirements and didn't demonstrate responsible and disciplined approach to risk mitigation, avoidance and management | Demonstrates the importance of compliant, disciplined and responsible behaviours in complying with Statutory and Organisational health, safety and risk management requirements and implications if these are not adhered to (Pass Grade Only) | |
| S3 | Organising work efficiently and effectively by managing engineering resources when completing tasks | Does not demonstrate ability to effectively contribute to organising work | Contributes in the organisation of work plans, monitoring, evaluating progress and providing feedback in order to complete tasks. | And...takes a lead role in the organisation of engineering resources |
| S4 | Using computer software packages to assist with engineering activities | Does not demonstrate required application of appropriate software packages | Uses appropriate hardware/software packages to assist in the design process, data capture, verification, evaluation and presenting results | And....establishes design, construction of methods and key criteria for verification of design performance in the creation of computer models. |
| S5 | Carrying out Project Management activities | Does not demonstrate ability to effectively carry out project management activities | Contributes to project management activities | And... <u>leads</u> projects, balancing ongoing timing, quality, cost and delivery considerations right through to successful completion |
| S9 | Demonstrating technical and commercial management by planning and managing tasks and resources | Does not demonstrate technical and commercial management when planning and managing tasks and resources | Demonstrates technical management capabilities when planning and managing tasks and resources | And...some commercial management capabilities when planning and managing tasks/ resources |

Grading Criteria - Method 1 - Case Studies Presentation

| Ref. | Descriptors | Fail Criteria F | Pass Criteria P | Distinction Criteria D |
|------|-------------------------------------|--|--|---|
| B1 | Safety mindset | Does not demonstrate compliant, disciplined and responsible Health and Safety behaviours | Demonstrates the importance of compliant, disciplined and responsible behaviours in complying with Statutory and Organisational health, safety and risk management requirements and implications if these are not adhered to (Pass Grade Only) | |
| B3 | Logical approach | Does not structure a plan and develop activities logically | Structure a plan, develops and follows a logical thought process | And Thinks quickly on feet |
| B4 | Problem solving orientation | Is willing to leave engineering problems unresolved | Identifies engineering issues/problems quickly, enjoys solving problems and applies appropriate solutions. | And...drives to the root cause of problems and finds solutions preventing recurrence |
| B5 | Quality focus | Does not routinely follow quality rules procedures and principles | Follows quality rules, procedures and principles ensuring work completed is fit for purpose | And...pro-actively seeks out and identifies quality issues |
| B7 | Clear communicator | Does not demonstrate appropriate behaviours when communicating | Open & honest, clear communicator. Uses appropriate communication methods. | And...uses a wide range of appropriate communication methods in a timely and positive manner whilst actively listening to others. |
| B8 | Team player | Does not demonstrate appropriate teamwork related behaviours | Not only plays own part but works and communicates clearly and effectively within a team in a respectful and professional manner so that the information given is accurate | And... helps and encourages others when required |
| B9 | Apply lean manufacturing principles | Does not demonstrate a continuous improvement mind-set | Applies lean manufacturing principles: continuous improvement in driving effectiveness and efficiency | And...takes a lead role in driving lean/continuous improvement activities |

Grading Criteria - Method 2 - Occupational Professional Discussion

| Ref | Descriptors | Fail Criteria F | Pass Criteria P | Distinction Criteria D |
|-----|--|--|--|---|
| K1 | Mathematics and science for engineers | Knowledge insufficient in one or both disciplines | Contributes to the business with knowledge in Mathematics and Science | And... <u>knows</u> how to apply situations that require an advanced understanding of mathematics and science over a broad range of methods |
| K2 | Materials and manufacture | Fails to demonstrate the required level of understanding in Materials and Manufacturing principles | A comprehensive understanding in manufacturing methods and sound knowledge in operating with appropriate materials | And... explains how these can be applied/utilised to enhance product and design needs |
| K3 | Mechanical, electrical and electronic principles and applications | Does not demonstrate required knowledge of appropriate Mechanical, Electrical and Electronic techniques | Demonstrates knowledge of advanced techniques/application within a design and development context | And ...identifies how advanced knowledge can be applied/utilised in problem rectification and the training and development of others |
| K4 | Statics and dynamics | Knowledge in Statics and dynamics is limited and apprentice struggles to contribute effectively | Is fully conversant with and can explain in detail the requirements and complexities of static and dynamic engineering systems | And... can apply superior knowledge by leading in the development of advanced processes and procedures |
| S1 | Comply with statutory and organisational safety requirements and demonstrate a responsible and disciplined approach to risk mitigation, avoidance and management | Does not demonstrate compliance with statutory and organisational safety requirements and didn't demonstrate responsible and disciplined approach to risk mitigation, avoidance and management | Demonstrates compliance with statutory and organisational safety requirements and demonstrates a responsible and disciplined approach to risk mitigation, avoidance and management (Pass Grade Only) | |
| S2 | Effectively use, interpret and evaluate a range of engineering data sources and documentation | Does not demonstrate ability to effectively contribute in the evaluation of data and documentation | Uses, interprets and evaluates a broad range of data sources and documentation | And...identifies key information and offers realistic recommendations and solutions |
| S6 | Establish design briefs, presenting and discussing technical proposals | Unable to effectively establish design briefs, deliver presentations or contribute in discussing technical proposals | Establishes design briefs. Presents and discusses technical proposals | And.. leads with advanced abilities in design principles, copyright and intellectual property issues |
| S7 | Manage and control product design changes | Shows little or insufficient ability to effectively manage or control product design change | Follows a systematic approach to design change analysis and control, contributing as a result | And.. Operates unsupervised or in a leading capacity in directing design change processes |

| | | | | |
|-----|--|--|--|---|
| S8 | Supporting team feasibility design reviews | Fails to demonstrate ability or capacity to contribute in supporting feasibility design reviews | Evaluates, designs and identifies improvements to support feasibility reviews | And... Demonstrates a willingness and advanced capability in leading or managing specific elements of the feasibility review |
| B1 | Safety mindset | Does not demonstrate compliant, disciplined and responsible Health and Safety behaviours | Demonstrates the importance of compliant, disciplined and responsible behaviours in complying with Statutory and Organisational health, safety and risk management requirements and implications if these are not adhered to (Pass Grade Only) | |
| B2 | Strong work ethic | Fails to demonstrate satisfactory work ethic or commitment | Demonstrates a positive attitude, motivated by engineering; dependable, ethical, responsible and reliable | And... Encourages others by leading by example and promoting and explaining the benefits of a strong work ethic |
| B6 | Personal responsibility and resilience | Shows little or no levels of sustained personal responsibility | Provides a strong demonstration in taking personal responsibility with a determined and resilient approach to attaining successful outcomes and results | And... Volunteers or requests to take on leading roles in challenging and demanding situations offering direction and guidance |
| B10 | Adaptability | Struggles to adapt or operate out of comfort zone over a range of Situations, Environments and Technologies (SET) | Displays strong characteristics in adaptability and capacity to adjust to suit specific operational requirements | And... .Actively seeks out new SETs and provided encouragement and support to those who struggled to adjust |
| B11 | Self-motivation | Fails to display sufficient levels of self-motivation, sustained self-starting or ability in making own decisions | Displays clearly recognisable levels of self-motivation, enthusiasm and a clear desire to perform at their best either as an individual or as part of a team | And...by inspiring, encouraging and coaching others to adopt similar levels of self-motivation and drive |
| B12 | Willingness to learn | Rarely or reluctantly takes advantage of new learning opportunities to further develop their abilities and knowledge | Willing to learn and further develop skills and knowledge on a regular basis | And... actively sources opportunities or training courses to further enhance own abilities and knowledge levels |
| B13 | Commitment | Shows little or no commitment to employer beliefs, goals and standards | Clearly displays strong levels of commitment, embracing employer beliefs and aspiring to the same goals and standards | And...Actively researches how to engage with a relevant Professional Engineering Institution in order to gain professional recognition at the appropriate level, such as Incorporated Engineer. |

Annex C – Apprentice Report Template

End Point Assessment On-Programme Period Occupational competence report Review for Level 6 Product Design and Development Engineering

| | |
|----------------------------|----------------------------------|
| Apprentice Name: | Click or tap here to enter text. |
| Date of submission: | Click or tap to enter a date. |
| Employer Name: | Click or tap here to enter text. |

Date of End Point Assessment: Click or tap to enter a date.

***Note: The Apprentice Report Template must be submitted to EAL as supporting evidence as part of their EPA application.**

Please note these are for guidance purposes only

| KNOWLEDGE | | | | |
|--|---------------------------------------|------|--|--|
| Ref. | Descriptors | Fail | Pass Criteria | Distinction Criteria |
| K1 | Mathematics and science for engineers | | Contributes to the business with knowledge in Mathematics and Science | And... knows how to apply situations that require an advanced understanding of mathematics and science over a broad range of methods |
| Pass criteria of Scope statements * | | | Justification of why they think they met Pass criteria referenced to appropriate K1 annex | |
| For a grade of Pass, the apprentice knows how to; <ul style="list-style-type: none"> Analyse and model engineering situations and solve problems using the calculus Apply standard probability and statistical techniques to analyse engineering problems Analyse engineering situations and solve problems using vector geometry and matrix methods Use complex numbers and apply complex numbers theory to the solution of engineering problems | | | Click or tap here to enter text. | |
| Distinction criteria of scope statements* | | | Justification of why they think they met Distinction criteria referenced to appropriate K1 annex | |
| For a grade of Distinction, the apprentice also knows how to; <ul style="list-style-type: none"> Apply more complex, demanding situations and scenarios. | | | Click or tap here to enter text. | |

| Ref. | Descriptors | Fail | Pass Criteria | Distinction Criteria |
|--|--|------|--|--|
| K2 | Materials and Manufacture | | A comprehensive understanding in manufacturing methods and sound knowledge in operating with appropriate materials | And... explains how these can be applied/utilised to enhance product and design needs |
| Pass criteria of Scope statements * | | | Justification of why they think they met Pass criteria referenced to appropriate K2 annex | |
| For a grade of Pass, the apprentice knows how to <ul style="list-style-type: none"> ▪ Review the classification of engineering materials including service requirements, environment, ease of manufacture and cost ▪ Define, analyse and compare the properties of engineering materials including their structure and methods of processing ▪ Review the methods of selecting and testing materials for engineering applications ▪ Investigate failure modes and degradation of engineering materials | | | Click or tap here to enter text. | |
| Distinction criteria of scope statements* | | | Justification of why they think they met Distinction criteria referenced to appropriate K2 annex | |
| For a grade of Distinction, the apprentice also knows how to; <ul style="list-style-type: none"> ▪ Demonstrate advanced knowledge in the application of above criteria ▪ Display in depth knowledge in the definition, analysis and comparison of engineering materials, methods and processes | | | Click or tap here to enter text. | |
| Ref. | Descriptors | Fail | Pass Criteria | Distinction Criteria |
| K3 | Mechanical, Electrical and Electronic principles and applications. | | Demonstrates knowledge of advanced techniques/application within a design and development context | And ...identifies how advanced knowledge can be applied/utilised in problem rectification and the training and development of others |
| Pass criteria of Scope statements * | | | Justification of why they think they met Pass criteria referenced to appropriate K3 annex | |
| For a grade of Pass, the apprentice knows how to; <ul style="list-style-type: none"> • Apply force vectors and couples in free body diagrams • Define and use underlying concepts related to dynamic mechanics which govern the operation and performance of mechanical engineering components and systems • Define and use electrical parameters and recognise their units of measurement • Apply laws and theorems to the analysis of DC and AC circuits • Apply simple models of electronic devices to common electronic circuits • Demonstrate the use of simple combinational and sequential logic devices in the basic structure of a microprocessor system | | | Click or tap here to enter text. | |
| Distinction criteria of scope statements* | | | Justification of why they think they met Distinction criteria referenced to appropriate K3 annex | |
| For a grade of Distinction, the apprentice also knows how to; <ul style="list-style-type: none"> ▪ Display and demonstrate all the above criteria and... <ul style="list-style-type: none"> ○ Apply those principles in more complex scenarios ○ Display advanced knowledge in interpretation and evaluation | | | Click or tap here to enter text. | |

| Ref. | Descriptors | Fail | Pass Criteria | Distinction Criteria |
|--|----------------------|------|--|--|
| K4 | Statics and dynamics | | Is fully conversant with and can explain in detail the requirements and complexities of static and dynamic engineering systems | And... can apply superior knowledge by leading in the development of advanced processes and procedures |
| Pass criteria of Scope statements * | | | Justification of why they think they met Pass criteria referenced to appropriate K4 annex | |
| <p>For a grade of Pass, the apprentice knows how to;</p> <ul style="list-style-type: none"> ▪ Model a simple physical component in static equilibrium and calculate the internal direct bending and shear stresses due to bending under concentrated and distributed loads ▪ Use the theory of torsion and its assumptions to model the distribution of shear stresses and calculate shear stress, shear strain and angle twist for solid and hollow circular sections ▪ Define the kinematic relationships between time, position, velocity and acceleration and use these and Newton's laws of motion to solve problems in both linear and rotational behaviour of particles, mechanisms and systems of masses ▪ Define the kinematic relationships between time, position, velocity and acceleration in systems, which exhibit simple harmonic motion and use these to calculate the kinematic qualities of both linear and transverse systems | | | Click or tap here to enter text. | |
| Distinction criteria of scope statements* | | | Justification of why they think they met Distinction criteria referenced to appropriate K4 annex | |
| <p>For a grade of Distinction, the apprentice also knows how to;</p> <ul style="list-style-type: none"> ▪ Display and demonstrate all the above criteria and... <ul style="list-style-type: none"> ○ Apply those principles in more complex scenarios | | | Click or tap here to enter text. | |

SKILLS

| Ref. | Descriptors | Fail | Pass Criteria |
|--|--|------|--|
| S1 | Comply with statutory and organisational safety requirements and demonstrate a responsible and disciplined approach to risk mitigation, avoidance and management | | Demonstrates the importance of compliant, disciplined and responsible behaviours in complying with Statutory and Organisational health, safety and risk management requirements and implications if these are not adhered to |
| Pass criteria of Scope statements* | | | Justification of why they think they met Pass criteria referenced to appropriate S1 annex |
| <p>For a pass grading, the apprentice applies appropriate skills in demonstrating a compliant, disciplined and responsible application of Health and Safety requirements including, but not limited to;</p> <ul style="list-style-type: none"> ▪ PPE regulations ▪ COSHH regulations ▪ Risk assessments, management and mitigation. ▪ Accident/emergency procedures ▪ Fire/evacuation procedures ▪ Procedures for hazardous malfunctions ▪ Safely operating/using tools and equipment ▪ Lifting/carrying techniques <p style="text-align: center;">(Pass Grade Only)</p> | | | Click or tap here to enter text. |


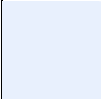
| Ref. | Descriptors | Fail | Pass Criteria | Distinction Criteria |
|--|--|------|---|--|
| S2 | Effectively use, interpret and evaluate a range of engineering data sources and documentation. | | Uses, interprets and evaluates a broad range of data sources and documentation | And... identifies key information and offers realistic recommendations and solutions |
| Pass criteria of Scope statements * | | | Apprentice's justification of why they think they met Pass criteria referenced to appropriate S2 annex | |
| For a grade of Pass, the apprentice can: <ul style="list-style-type: none"> Evaluate and interpret engineering data in accordance with approved procedures Plan the most effective way to evaluate data Obtain relevant information from appropriate sources Report any problems that they cannot personally resolve Present results of data evaluation to appropriate personnel | | | Click or tap here to enter text. | |
| Distinction criteria of scope statements* | | | Apprentice's justification of why they think they met Distinction criteria referenced to appropriate S2 annex | |
| For a grade of Distinction, the apprentice can also: <ul style="list-style-type: none"> Perform a lead role in the evaluation of engineering data Display an advanced ability in planning and effective evaluation | | | Click or tap here to enter text. | |
| Ref. | Descriptors | Fail | Pass Criteria | Distinction Criteria |
| S6 | Establish design briefs, presenting and discussing technical proposals. | | Establishes design briefs. Presents and discusses technical proposals | And.. leads with advanced abilities in design principles, copyright and intellectual property issues |
| Pass criteria of Scope statements * | | | Justification of why they think they met Pass criteria referenced to appropriate S6 annex | |
| For a grade of Pass, the apprentice can: <ul style="list-style-type: none"> Establish a design brief for engineering products or processes in accordance with approved procedures Gather information from a number of sources to develop a design brief Establish the application, function and constraints Discuss and communicate the proposals with the client and all other relevant people | | | Click or tap here to enter text. | |
| Distinction criteria of scope statements | | | Justification of why they think they met Distinction criteria referenced to appropriate S6 annex | |
| For a grade of Distinction, the apprentice can also: <ul style="list-style-type: none"> Demonstrate advanced abilities in establishing design briefs by leading, either on own, or driving a team. Display advanced skills in project and resource management when establishing the design briefs | | | Click or tap here to enter text. | |

| Ref. | Descriptors | Fail | Pass Criteria | Distinction Criteria |
|---|---|--|---|--|
| S7 | Manage and control product design changes | | Follows a systematic approach to design change analysis and control, contributing as a result | And.. Operates unsupervised or in a leading capacity in directing design change processes |
| Pass criteria of Scope statements * | | Justification of why they think they met Pass criteria referenced to appropriate S7 annex | | |
| For a grade of Pass, the apprentice can: <ul style="list-style-type: none"> Control and design a change process Follow a systematic approach to design change analysis and control Make changes in agreement with relevant people Comply with organisational policy and procedures for ensuring the successful development of the design strategy Report any problems that they cannot personally resolve | | Click or tap here to enter text. | | |
| Distinction criteria of scope statements* | | Justification of why they think they met Distinction criteria referenced to appropriate S7 annex | | |
| For a grade of Distinction, the apprentice can also: <ul style="list-style-type: none"> Perform a lead role in the management and control of product design changes Recommend and implement product design changes in agreement with relevant people | | Click or tap here to enter text. | | |
| Ref. | Descriptors | Fail | Pass Criteria | Distinction Criteria |
| S8 | Support team feasibility design reviews | | Evaluates, designs and identifies improvements to support feasibility reviews | And... Demonstrates a willingness and advanced capability in leading or managing specific elements of the feasibility review |
| Pass criteria of Scope statements * | | Justification of why they think they met Pass criteria referenced to appropriate S8 annex | | |
| For a grade of Pass, the apprentice can: <ul style="list-style-type: none"> Provide effective support in team feasibility design reviews Establish and manage team feasibility design reviews in accordance with policy and procedures Demonstrate ability to contribute with new ideas and suggestions as part of the design review | | Click or tap here to enter text. | | |
| Distinction criteria of scope statements | | Justification of why they think they met Distinction criteria referenced to appropriate S8 annex | | |
| For a grade of Distinction, the apprentice can also: <ul style="list-style-type: none"> Provide leadership and direction either on own, or as part of a team, with feasibility design reviews. Effectively communicate to senior stake holders results and outcomes of feasibility design reviews | | Click or tap here to enter text. | | |

| BEHAVIOURS | | | | |
|---|-------------------|--|--|---|
| Ref | Descriptors | Fail | Pass Criteria | Distinction Criteria |
| B1 | Safety mindset | | Demonstrates the importance of compliant, disciplined and responsible behaviours in complying with Statutory and Organisational health, safety and risk management requirements and implications if these are not adhered to | |
| Pass criteria of Scope statements * | | Justification of why they think they met Pass criteria referenced to appropriate B1 annex | | |
| <p>For a pass grading, the apprentice applies appropriate skills in demonstrating a compliant, disciplined and responsible application of Health and Safety requirements, including but not limited to;</p> <ul style="list-style-type: none"> ▪ PPE regulations ▪ COSHH regulations ▪ Risk assessments, management and mitigation. ▪ Accident/emergency procedures ▪ Fire/evacuation procedures ▪ Procedures for hazardous malfunctions ▪ Safely operating/using tools and equipment ▪ Lifting/carrying techniques | | Click or tap here to enter text. | | |
| Ref. | Descriptors | Fail | Pass Criteria | Distinction Criteria |
| B2 | Strong work ethic | | Demonstrates a positive attitude, motivated by engineering; dependable, ethical, responsible and reliable | And... Encourages others by leading by example and promoting and explaining the benefits of a strong work ethic |
| Pass criteria of Scope statements * | | Justification of why they think they met Pass criteria referenced to appropriate B2 annex | | |
| <p>For a grade of Pass, the apprentice knows how to;</p> <ul style="list-style-type: none"> ▪ Demonstrate a positive attitude motivated by engineering <ul style="list-style-type: none"> ○ Dependable ○ Ethical ○ Responsible ○ Reliable | | Click or tap here to enter text. | | |
| Distinction criteria of scope statements* | | Justification of why they think they met Distinction criteria referenced to appropriate B2 annex | | |
| <p>For a grade of Distinction, the apprentice also knows how to;</p> <ul style="list-style-type: none"> ▪ Encourage others by leading by example and promoting and explaining the benefits of a strong work ethic | | Click or tap here to enter text. | | |

| Ref. | Descriptors | Fail | Pass Criteria | Distinction Criteria |
|--|--|------|---|---|
| B6 | Personal responsibility and resilience | | Provides a strong demonstration in taking personal responsibility with a determined and resilient approach to attaining successful outcomes and results | By... Volunteers or requests to take on leading roles in challenging and demanding situations offering direction and guidance |
| Pass criteria of Scope statements * | | | Justification of why they think they met Pass criteria referenced to appropriate B6 annex | |
| For a grade of Pass, the apprentice knows how to; <ul style="list-style-type: none"> Provide a strong demonstration in taking personal responsibility with a determined and resilient approach to attaining successful outcomes and results | | | Click or tap here to enter text. | |
| Distinction criteria of scope statements* | | | Justification of why they think they met Distinction criteria referenced to appropriate B6 annex | |
| For a grade of Distinction, the apprentice also knows how to demonstrate advanced ability; <ul style="list-style-type: none"> By volunteering or requesting to take on leading roles in challenging and demanding situations, offering direction and guidance. | | | Click or tap here to enter text. | |
| Ref. | Descriptors | Fail | Pass Criteria | Distinction Criteria |
| B10 | Adaptability | | Displays strong characteristics in adaptability and capacity to adjust to suit specific operational requirements | And... .Actively seeks out new SETs and provided encouragement and support to those who struggled to adjust |
| Pass criteria of Scope statements * | | | Justification of why they think they met Pass criteria referenced to appropriate B10 annex | |
| For a grade of Pass, the apprentice knows how to; <ul style="list-style-type: none"> Display strong characteristics in adaptability and capacity to adjust to suit specific operational requirements | | | Click or tap here to enter text. | |
| Distinction criteria of scope statements* | | | Justification of why they think they met Distinction criteria referenced to appropriate B10 annex | |
| For a grade of Distinction, the apprentice also knows how to demonstrate advanced ability; <ul style="list-style-type: none"> By actively seeking out new SETs and provide encouragement and support to those who struggle to adjust | | | Click or tap here to enter text. | |

| Ref. | Descriptors | Fail | Pass Criteria | Distinction Criteria |
|--|----------------------|------|--|--|
| B11 | Self-motivation | | Displays clearly recognisable levels of self-motivation, enthusiasm and a clear desire to perform at their best either as an individual or as part of a team | And..by inspiring, encouraging and coaching others to adopt similar levels of self-motivation and drive |
| Pass criteria of Scope statements * | | | Justification of why they think they met Pass criteria referenced to appropriate B11 annex | |
| For a grade of Pass, the apprentice knows how to; <ul style="list-style-type: none"> Display clearly recognisable levels of self-motivation, enthusiasm and a clear desire to perform at their best either, as an individual or as part of a team. | | | Click or tap here to enter text. | |
| Distinction criteria of scope statements* | | | Justification of why they think they met Distinction criteria referenced to appropriate B11 annex | |
| For a grade of Distinction, the apprentice also knows how to; <ul style="list-style-type: none"> Inspire, encourage and coach others to adopt similar levels of self-motivation and drive. | | | Click or tap here to enter text. | |
| Ref. | Descriptors | Fail | Pass Criteria | Distinction Criteria |
| B12 | Willingness to learn | | Willing to learn and further develop skills and knowledge on a regular basis | And... actively sources opportunities or training courses to further enhance own abilities and knowledge levels |
| Pass criteria of Scope statements * | | | Justification of why they think they met Pass criteria referenced to appropriate B12 annex | |
| For a grade of Pass, the apprentice knows how to; <ul style="list-style-type: none"> Display a willingness to learn and further develop skills and knowledge on a regular basis | | | Click or tap here to enter text. | |
| Distinction criteria of scope statements* | | | Justification of why they think they met Distinction criteria referenced to appropriate B12 annex | |
| For a grade of Distinction, the apprentice also knows how to; <ul style="list-style-type: none"> Actively sources opportunities or training courses to further enhance own abilities and knowledge levels | | | Click or tap here to enter text. | |
| Ref. | Descriptors | Fail | Pass Criteria | Distinction Criteria |
| B13 | Commitment | | Clearly displays strong levels of commitment, embracing employer beliefs and aspiring to the same goals and standards | And.. has actively engaged with a relevant Professional Engineering Institution to gain professional recognition at the appropriate level, such as Incorporated Engineer |
| Pass criteria of Scope statements * | | | Justification of why they think they met Pass criteria referenced to appropriate B13 annex | |
| For a grade of Pass, the apprentice knows how to; <ul style="list-style-type: none"> Commit to the beliefs, goals and standards of their own employer and to the wider industry | | | Click or tap here to enter text. | |
| Distinction criteria of scope statements* | | | Justification of why they think they met Distinction criteria referenced to appropriate B13 annex | |
| For a grade of Distinction, the apprentice also knows how to; <ul style="list-style-type: none"> Actively research on how to engage with a relevant Professional Engineering Institution in order to gain professional recognition at the appropriate level, such as Incorporated Engineer | | | Click or tap here to enter text. | |

| Your details | |
|--|---|
| Apprentice Name: | Click or tap here to enter text. |
| Apprentice Employee Number: | Click or tap here to enter text. |
| Apprentice Signature: | Click or tap here to enter text.  |
| I confirm that the information and evidence contained in this assessment occupational competence report is the work of the apprentice, named above <input type="checkbox"/> (tick) | |
| Employer representative (mentor) details | |
| Employer Representative Name: | Click or tap here to enter text. |
| Employer Representative Job Title: | Click or tap here to enter text. |
| Relationship to Apprentice: | Click or tap here to enter text. |
| Representative Signature: | Click or tap here to enter text.  |

Recommended check list for employers for EPA:

- The End Point Assessment (presentation and professional discussion) is booked with the Apprentice Assessment Organisation
- A date and place of assessment is confirmed
- The name of the EPAO/Independent Assessor is confirmed along with assessment dates
- Prior to End Point Assessment the Apprentice, supported by their employer/provider, must have completed the occupational competence report recording document against the apprenticeship standards
- The Apprentice has prepared for the EPA presentation and professional discussion
- All dates/times/locations and contact details are confirmed

Contents



| | |
|----------------------------------|--|
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |
| Click or tap here to enter text. | Page Click or tap here to enter text. |



| Name | Position | Contact Email/Telephone | Signature |
|----------------------------------|----------------------------------|----------------------------------|-----------|
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | |

Assessor Notes: Where the apprentice has provided sufficient evidence to satisfy the learning area as identified in the **EAL L6 PDD Assessment Report Template**, the IA will indicate within the **EAL L6 PDD Assessment Recording Document**. Where a Learning Area has not been fully met, questions should be prepared to be used at the professional discussion.



© 2020 EAL Limited (Excellence, Achievement and Learning)

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of EAL Limited.