T-LEVELS | IfATE Institute for Apprenticeships and Technical Education

T Level Technical Qualification in Design and Development for Engineering and Manufacturing

8730-14 Core Report (Summer 2025)

Version 1.2

City & Guilds | eal

Version and date	Change Detail	Section
V1-0 - August 2025	Published core report	
V1-1 - August 2025	Grade boundaries table	8730 Sub-Component: Exam
V1-2 – August 2025	Grade boundaries table - year	8730-035 Sub-Component: Employer-Set Project

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Foreword

Summer 2025 Results

The Technical Qualification is made up of two components (the Core and the Occupational Specialism), both of which need to be successfully achieved to attain the T Level Technical Qualification in Design and Development for Engineering and Manufacturing. This takes into account the best result for a specific component from the summer and autumn series. This document covers the Core component only.

We discussed the approach to standard setting/maintaining with Ofqual and the other awarding organisations before awarding this year.

Introduction

This document has been prepared to be used as a feedback tool for Providers in order to support and enhance teaching and preparation for assessment. It is advised that this document is referred to when planning delivery and when preparing candidates for the T Level Technical Qualification (TQ) in Design and Development for Engineering and Manufacturing **Core** assessments.

This report provides general commentary on candidate performance in both the examination papers and Employer-Set Project (ESP). It highlights common themes in relation to the technical aspects explored within the assessment, giving areas of strengths and weakness demonstrated by the cohort of candidates who sat assessments in the summer 2025 assessment series.

The grade boundaries (and notional boundaries where appropriate) that were used to determine candidates' final summer 2025 results are also provided.

More information regarding T Levels TQ grading, awarding, UMS and rules for retakes can be found in the T Levels Technical Qualifications Grading Guide available on the City & Guilds T Levels Resources and Support Hub.

8730-031 Paper 1

This exam paper covers the following elements of the Engineering & Manufacturing core content:

- Essential mathematics for engineering and manufacturing
- Essential science for engineering and manufacturing
- Materials and their properties
- Mechanical principles
- Electrical and electronic principles
- Mechatronics

This exam paper allowed for candidates to demonstrate a broad range of subject knowledge within the Engineering and Manufacturing core element.

The exam has been split into **two** sections. Below details the types of questions and marks available for each section.

Section A is made up of **67** marks and includes **18** short answer questions.
Section B is made up of **33** marks and includes **3** extended response questions.

The exam is designed to provide sufficient sampling across the content and consists of a mixture of short answer questions (SAQs), some of which are structured, and extended response questions (ERQs). The exam assesses across assessment objectives (AOs) to allow for the appropriate assessment and differentiation of candidates to support the reliable setting of boundaries. The assessment objectives represent the following:

- **AO1 a** Demonstrate knowledge
- **AO1 b** Demonstrate understanding
- **AO2** Apply knowledge and understanding to different situations and context
- **AO3** Analyse and evaluate information and issues

The paper is common to the three pathways of Engineering & Manufacturing; Design & Development (D&D), Maintenance, Installation and Repair (MIR) and Engineering, Manufacturing, Processing and Control (EMPC).

The examination paper is designed so that it gradually increases in challenge. Questions were ramped in terms of difficulty throughout section A starting with AO1a through to AO2, this allowed for the level of demand to be increased steadily throughout the paper. The extended response questions (ERQ) in section B were scenario based and ramped with AO2 and AO3 questions.

Areas of strength include:

- SI units and symbols (Q4). This was an AO1a question and candidates were able to recall the current SI units and symbols that were asked. Candidates performed well overall in this question.
- Estimation (Q6). Candidates responded well to this question with most candidates achieving full marks. This was an AO1b question and candidates needed to apply their fundamental mathematical knowledge as the question relied on basic percentage and multiplication.

- Measurement Equipment (Q10). Generally candidates were able to perform well on this question. They were able to provide the correct equipment that should be used when given a measurement that needed to be carried out. This was an AO1b question as the candidate had to show understanding of the measurement that was requested and the equipment that should be used.
- Hooke's Law (Q14). Question 14 contained two parts (a and b) and candidates performed well on both of these parts. This was an AO2 question. The candidate had to use a Graph and a Table to answer these questions, which meant the candidate had to apply knowledge and understanding within the given context of the question. The candidates were able to clearly explain the relationship between force and extension.
- Calculation of energy and type of energy (Q16ai & Q16aii). The candidate had to calculate the energy within a given context. They were given the necessary figures in order to work this out, but they needed to know how to do this. The second part of this was knowing what type of energy this was. Both of these questions were AO2 questions, as there was knowledge and understanding shown in a given context.

Overall, an improvement in candidates' performance was seen in candidates' responses to Section A when compared to previous series.

Areas of weakness include:

- Differentiation and integration (Q7). Many candidates struggled with this question with the majority of candidates not scoring any marks. A small percentage achieved 1 mark out of 2, but a larger percentage achieved full marks. A common error seen was the direct substitution of the value of t into the distance formula. Only a limited numbers of candidates correctly identified that the distance function needed to be differentiated to find velocity, suggesting limited understanding of how calculus is applied in motion-related problems.
- Units of measurements used in engineering (Q8). The majority of candidates were not able to convert μA into amps.
- There were two different mathematical approaches to respond to Q12 depending on the interpretation of the question and both were fully credited, though many still struggled with the mathematical demands of the question.
- Materials testing methods (Q13). A full range of marks were shown on this question, however a large amount of candidates scored 0. Many candidates focused on describing the mechanical strength of materials rather than outlining the process used to test for hardness. The better answers were able to include specific test types like Brinell or Vickers and clearly outlined the steps as asked in the question.
- Principles of motion and mechanics in engineering and manufacturing (16b). Although candidates generally performed well in part of A of this question they struggled with part B. Candidates needed to calculate speed and were required to use the transposition technique, however the struggled to make v the subject of the equation. Although the majority of candidates did get 0 marks. If candidates did score marks they generally got full marks (3). Very few candidates scored 1 or 2 marks.

Similar to previous series it was observed that candidates understanding of mathematics and scientific principles was not at the level expected at Level 3. With some written responses candidates' answers often lacked the detail to demonstrate they had the required knowledge to warrant marks. Responses were usually generic and lacking in depth.

Responses to extended response questions (ERQs)

The majority of candidates attempted the ERQ's within Section B, with the high achieving candidates responding with more depth and detail in their responses, in comparison to the low achieving candidates. It's important to emphasise the need to relate back to the context of the question to exemplify answers and demonstrate application of knowledge and understanding. Although most candidates evaluation skills could be improved with particular focus on justifying their choices and rationales, the overall performance of the ERQs did increase slightly to compared to previous series.

Question 19 required candidates to demonstrate their knowledge and understanding of thermodynamics. A full spread of marks was seen, with the majority of candidates responses in mark band 1 (1,2 or 3 marks out of 9). While many candidates recognised that airflow plays a role in generating lift, explanations were often vague or incomplete—for example, stating that 'the wing goes up because air moves faster' without clarifying the link to pressure differences. Some attempted to reference Bernoulli's principle, but their application lacked accuracy or relevance to the context. More competent answers correctly explained that faster airflow over the curved upper surface results in lower pressure above the wing, while higher pressure beneath it creates lift. The best responses went further, detailing how the shape of the wing influences airflow and contributes to this pressure imbalance.

Question 20 assessed candidates' knowledge and understanding of sintering. Once again, a full range of marks were seen, 0 to 12 marks, and similar to question 19 most candidates were in mark band 1. This topic proved challenging for many candidates, with a significant number of general discussions on materials, quality, or broader manufacturing principles. Responses often focused on the general production of engine parts rather than the specific process of sintering. There were several candidates who mistakenly described sintering as powder coating. A lack of understanding of the sintering process was common, though a small number of responses demonstrated clear and accurate knowledge.

Many candidates listed advantages such as less waste or stronger parts without explaining how these benefits are achieved or why they are relevant to engine components. In contrast, more thorough responses addressed key concepts such as densification, porosity, and material selection, linking them to improvements in strength, durability, and precision. The strongest answers provided detailed evaluations of how sintering parameters, such as temperature, pressure, and atmospheric control affect final part performance, while also considering the economic and environmental implications for large-scale manufacturing.

Question 21 assessed candidate's knowledge and understanding of a suitable plastic to use within a context of a water tank. Performance on this question was generally better with most candidates being in mark band 2 (4,5 or 6 marks out of 12), and again the full range of marks were seen. Candidates demonstrated varying levels of understanding in material selection for this question. Some responses named generic plastics without considering the performance requirements of a water tank exposed to steam and elevated temperatures, while others suggested metals or inappropriate materials. A common issue was the failure to specify a suitable type of plastic, with some suggestions unsuited to the application.

Stronger responses identified the need for materials with good thermal resistance, rigidity, and corrosion resistance, often recommending appropriate thermosetting plastics. These answers also highlighted the advantages of plastics in terms of weight, cost-effectiveness, and ease of manufacture. High-quality responses went further, addressing important factors such as dimensional stability, design flexibility, and suitability for moulding or forming processes. The most comprehensive answers demonstrated evaluative thinking, offering well-reasoned justifications and showing awareness of real-world considerations, including regulatory compliance, environmental impact, and material availability.

8730-032 Paper 2

This exam paper covers the following elements of the Engineering and Manufacturing core content:

- Working in the Engineering and Manufacturing sectors
- Engineering and manufacturing past, present, and future
- Engineering representations
- Engineering and manufacturing control systems
- Quality management
- Health and Safety principles and coverage
- Business, commercial, and financial awareness
- Professional responsibilities, attitudes, and behaviours
- Stock and asset management
- Continuous improvement
- Project and programme management

This exam paper allowed for candidates to demonstrate a broad range of subject knowledge within the Engineering and Manufacturing core element.

The exam has been split into **two** sections. Below details the types of questions and marks available for each section.

Section A is made up of **67** marks and includes **12** short answer and medium answer questions.
Section B is made up of **33** marks and includes **3** extended response questions.

The exam is designed to provide sufficient sampling across the content and consists of a mixture of short answer questions (SAQs), some of which are structured, and extended response questions (ERQs). The exam assesses across assessment objectives (AOs) to allow for the appropriate assessment and differentiation of candidates to support the reliable setting of boundaries. The assessment objectives represent the following:

- **AO1 a** Demonstrate knowledge
- **AO1 b** Demonstrate understanding
- **AO2** Apply knowledge and understanding to different situations and context
- **AO3** Analyse and evaluate information and issues

The paper is common to the three pathways of Engineering and Manufacturing; Design & Development (D&D), Maintenance, Installation and Repair (MIR) and Engineering, Manufacturing, Processing and Control (EMPC).

Questions were ramped in terms of difficulty throughout section A starting with AO1a through to AO2, this allowed for the level of demand to be increased steadily throughout the paper. The extended response questions ERQ questions in section B were scenario based and ramped with AO2 and AO3 questions.

Areas of strength include:

- Monitoring (Q2). Candidates typically answered correctly with most candidates being able to provide two suitable responses. This was an AO1a question, so candidates were required to recall knowledge of an abbreviation used in engineering drawings. Questions 4b and 4c asked for different abbreviations but did not perform as well.
- Engineering representations (Q4a). Most candidates achieved the mark for this question. This was an AO1a question, so candidates were required to recall
- Health and safety, employee and employer obligations (Q5). There was strong performance on this question, which was an AO1b question, so candidates were required to show understanding. Candidates mainly achieved full marks, 4 out of 4, and in some instances where candidates did not score any marks candidates provided employer responsibilities where as the question asked for employee responsibilities.
- Project and programme management, control (Q6). Candidates generally performed well on this question and were able to identify two reasons that were asked for, where full marks were not achieved the candidate often did not explain that reason. As an AO1b question, the candidate needed to demonstrate understanding.
- Fully automated (Q7). This question has a part a and part b, both questions were answered well. The questions related to advantages and limitations, with advantages performing slightly better than limitations, but responses on both were very strong.
- Health and Safety legislation (Q9a). The majority of candidates were able to achieve at least 2 marks for identifying 2 items and the higher achieving candidates were able to provide a linked response achieving full marks. This was an AO2 question, so candidates had to demonstrate knowledge and understanding in relation to the context of the question.
- Health and Safety, considerations (Q9b). There were three marks available on this question and the majority of candidates were able to achieve 2 or 3 marks.
- Just in time (Q10a). Candidates had to provide and advantage and disadvantage of a company adopting a just in time inventory management system within the given context. As this related back to a context this was also an AO2 question, and candidates were able to show their knowledge and understanding with most candidates scoring 2-4 marks.

Areas of weakness include:

- Project planning and control (Q1). This was an AO1a question and candidates were asked to recall knowledge. Most candidates were unable to achieve a mark as they could not provide a project planning method and often were providing a design process. There were some candidates that achieved full marks (2), as they were able to provide 2 methods.
- Engineering and manufacturing control systems, active (Q8a). This question was an AO1b question, so candidates were required to show their understanding of actuators, however some candidates were not able to do this and received 0 marks. There was still a sizeable number of candidates that received 1 or 2 marks, out of a possible 2.
- Budgets (Q9d). This was an AO2 question, so candidates needed to demonstrate understanding and knowledge within the given context. Some candidates did seem to struggle with this question, with many providing reasons that explained why the project may have gone over budget rather than implications as required.

- Augmented reality (Q11). A large number of candidates described aspects of virtual reality rather than augmented reality that was asked for. Although, the full range of marks were achieved, (0 – 6 marks) many candidates received 0 as they were discussing virtual reality.

Response to extended question (ERQs)

Question 13 assessed candidates' knowledge and understanding of specific legal practices in the operation of an engineering organisation. The majority of candidates demonstrated excellent understanding of contracts and warranties securing at least, but very few candidates were able to demonstrate knowledge and understanding of tendering limiting responses. Therefore, most candidates were within marking band 2 (4, 5 or 6 marks out of 9). A full range of marks were seen, so the stronger responses were able to fully contextualise the practices and their influences.

Question 14 required candidates to evaluate Standard Operating Procedures (SOPs) within a manufacturing and assembling context. A full range of marks were shown with this question (0-12 marks). Some candidates did not score any marks on this question, however most candidates either fell into mark band 1 (1, 2 or 3 marks) or mark band 2 (4, 5 or 6 marks). Most candidates were able to provide reasons for using SOPs showing a good understanding in the context provided, though for the weaker candidates it was not always clear in the response that SOP is a set of instructions, rather than a general discussion of safety and quality compliance. Those who did receive a lower mark often did not refer to the context.

Question 15 asked candidates to discuss how the design brief affects the design and manufacture of a certain product within a certain context. A full range of marks were seen with this question (0-12 marks). Most candidates were within mark band 2 (4, 5 or 6 marks). Although candidates were able to demonstrate understanding of a design brief many were unable to link their understanding to manufacturing, which limited the number of candidates that were able to access mark band 3. Many candidates also struggled to link their answers back to the context, which also limited the number of marks they received.

8730 Sub-Component: Exam

Best practice and guidance to providers on potential areas for improving performance in assessment

It is recommended that providers utilise and deliver the sample examinations as well as past papers (Summer 2023/2024 & Autumn 2023/2024) as formative assessment to support candidates in preparation for summative assessment.

Providers are advised to ensure that the full range of specification handbook content is covered to the required depth shown in the ‘what learners need to learn’ section of the content, and that sufficient time is given to each of these topic areas.

Candidates would benefit from understanding what different command verbs are asking of them. For example, the type of response required by an ‘Explain’ question requires a higher level of response than a ‘State’ or ‘Describe’ question. Candidates should be reminded of the need to ensure they fully read and understand all questions before responding.

Providers should support candidates on developing their skills in writing responses to questions that ask for basic knowledge recall, demonstration of understanding, as well as those that are set within, and require reference to, appropriate engineering contexts.

Candidates must be reminded of the need to ensure they fully read all questions before responding. In particular, the ERQ scenario-based questions and questions assessing the application of knowledge and understanding (AO2) must be related back to the context of the question.

ERQ performance could be further enhanced by preparing candidates to consider in-depth explanations and analysis (including secondary implications where appropriate) on different scenarios and relating it back to the context. To achieve the higher bands candidates needed to include more detailed conclusions and justifications in their responses.

Mathematical skills remain an area of weakness for many candidates, as has been evident across multiple series. While some showed improvement, many continue to struggle with applying basic numerical techniques, interpreting data accurately, and using appropriate units or formulae.

Some of the papers had very unclear handwriting, making it difficult for the marker to read the response. Providers should encourage candidates to ensure their handwriting is legible. Writing in block capital letters is a possible solution if a candidate’s handwriting is not legible.

Support materials

Sample and Past Papers:
It is recommended that Providers utilise and deliver the **sample examinations** as well as **past papers** as formative assessment to support candidates in preparation for summative assessment.

Sample and past papers: T Level Technical Qualification in Engineering and Manufacturing (Core) qualifications and training courses | City & Guilds (cityandguilds.com)

Exam Guides:
It is also recommended that Providers utilise the **exam guides** which provides general tips for candidates taking these assessments, examples of different types of questions that will appear, example candidate responses with examiner commentary and examiner hints and tips.

Link: Exam Guide

Events and Webinars:
City & Guilds run free webinars and events throughout the year on preparing for and delivering the T Level exams. The below link provides details on upcoming in person events, live webinars, on-demand webinars and preparation for the core exams.

Link: Events and webinars - T Levels | City & Guilds (cityandguilds.com)

Grade boundaries

The table below shows the grade mark ranges for the Exam, along with the notional boundaries for Paper 1 and Paper 2 – **for the summer 2025 series.**

Grade	Mark range	Notional boundaries	
		Paper 1 (8730-031)	Paper 2 (8730-032)
A*	168-200	83-100	84-100
A	148-167	73-82	75-83
B	128-147	63-72	65-74
C	108-127	53-62	55-64
D	88-107	43-52	45-54
E	68-87	33-42	35-44
Unclassified (U)	0-67	0-32	0-34

8730-035 Sub-Component: Employer-Set Project

The Employer-Set Project (ESP) assessment is a project comprised of a number of tasks, based on a scenario comparable to a real-life project in the industry. The assessment is designed to allow candidates to show how they can perform on a project using the core knowledge and skills. This approach to assessment emphasises to candidates the importance and applicability of the full range of their learning to industry practice.
The project is made up of a number of tasks which all relate to the same employer-set project brief and tender specification.

- Research
- Design
- Plan
- Present

The project draws on the content from the core knowledge that sits across all specialisms in Design and Development for Engineering and Manufacturing.

The ESP assesses across assessment objectives that will allow for the appropriate differentiation of candidates to support the reliable setting of boundaries. The assessment objectives represent the following:

- **AO1** Plan approach to meet the brief
- **AO2** Apply knowledge and skills to contexts
- **AO3** Select techniques and resources to meet brief
- **AO4** Use maths, English and digital skills
- **AO5** Release project outcome and evaluate

The project is based around a brief which provides information on a Design and Development project and specific relevant details and resources. Candidates have to draw on their Core knowledge and skills and independently select the correct processes and approaches to take to provide a solution and the evidence specified in the project brief. All tasks are completed under supervised/controlled conditions.

Employer-Set Project tasks overview

Task	Task Type	Assessment Objectives covered	Max Mark	Task weighting
1	Research	AO1, AO2a, AO3 (Planning, core knowledge, selecting techniques and resource)	9	16.6%
		AO2b (Core Skills)	6	
2	Design	AO1, AO3 (Planned approach, selecting techniques)	6	26.7%
		AO2a (Core knowledge)	6	
		AO2b (Core Skills)	6	
		AO5a, AO5b (Realise outcome, review outcome)	6	
3	Plan	AO1, AO3 (Planned approach, selecting techniques)	6	20%
		AO2a (Core knowledge)	6	
		AO2b (Core Skills)	6	
4	Present	AO1, AO3 (Planned approach, selecting techniques)	6	26.7%
		AO2a (Core knowledge)	6	
		AO2b (Core Skills)	6	
		AO5a, AO5b (Realise outcome, review outcome)	6	
Maths, English and digital skills		AO4a (Maths)	3	10%
		AO4b (English)	3	
		AO4c (Digital Skills)	3	

Task 1 – Research:

Candidates were required to research potential design solutions for an automatic pill dispenser that fit the needs of a design specification. Candidate performance for this task, were mainly placed within band 2 descriptor (4, 5 or 6 marks).

It was noted that some candidates submitted a single document as evidence for both the research and the report, whereas they should have been two distinct pieces of work. Candidates should be covering the whole breadth of the design specification, however a notable number of candidates covered just one part in depth with minimal coverage of the others. Some candidates used Chat GPT for their research but did not check the validity of the information provided. Many candidates failed to provide references/sources from their research activities, but there was some slight improvement from previous series in this respect. Some candidates were unable to provide an appropriate technical design brief so they could not show knowledge and understanding fully.

Candidates who achieved the higher band marks incorporated a range of different techniques to undertake their research, providing a full range of sources. The higher band candidates were able to plan their research using sub-titles in relation to the brief and task requirements developing a strong structure as the basis of their research. Candidates who achieved the lower band marks provided minimal references to sources.

Actions providers can take to support assessment preparation for future series:

Providers are advised to work with candidates to improve their skills in relation to research and correct referencing as well as checking their findings are correct, especially when using artificial intelligence software. Providers are encouraged to advise candidates to incorporate more images to visualise and explain their research by making clearer connections to industry standards and guidance. Providers are advised to ensure candidates can develop their writing skills especially on evaluation and justification. It would be beneficial to ensure that candidates provide research notes and written technical brief as two separate pieces of work rather than combining them to demonstrate applications of research. It would also be beneficial for providers to ensure candidates can demonstrate how to organise their project planning more effectively to meet the brief requirements.

Task 2 – Design:

Candidates were required to develop at least two designs and prepare drawings (sketches and CAD) for the automated pill dispenser and undertaking relevant calculations. Most candidates scored within band 2 descriptor for this task (3 or 4 marks).

Candidates who incorporated calculations and CAD drawings with detailed dimensions and annotated sketches achieved the higher band marks for demonstrating their ability to plan their approach to meeting the project brief. Some candidates who achieved the lower band marks provided basic sketches, with limited annotations and limited or no calculations to calculate the cost of the units and budget.

Some candidates who achieved the lower band marks were unable to present two design concepts fully annotated as part of their sketches, whereas other candidates used CAD drawings to convey their ideas instead of sketches with some annotations providing gaps when demonstrating core knowledge. Most candidates provided logical design concepts in relation to different aspects of the brief with mostly proportional ideas annotated and dimensioned. Some strengths were clear when candidates were justifying materials choices,

storage and mechanisms. Candidates who achieved the higher band marks demonstrated consideration of refining their design concepts between initial ideas and CAD designs using reflective notes to review how the task outcome was achieved. Whereas candidates who achieved the lower band marks provided generic evaluations which did not always convey their understanding of how they met the requirements of the design criteria.

Actions providers can take to support assessment preparation for future series:

Providers are advised to focus on ensuring candidates have a clear structure for their report and collate their research notes into a cohesive report. Candidates would also benefit from a more consistent use of technical language and industry conventions, employing a variety of communication methods to convey their ideas effectively within the reports.

It is noted, that scanned images were often difficult to read, providers are advised to ensure an appropriate pencil is used for sketches. Request that scanned images are of a high resolution to ensure that the design ideas and annotations can be easily read.

Task 3 – Plan:

Candidates were required to produce a programme of work plan detailing the stages and considerations required to complete the design, development, and manufacture of their final automated pill dispenser. Overall, the majority of candidates achieved band 2 descriptor (3 or 4 marks).

Candidates who achieved the higher band marks created detailed Gantt charts outlining all stages of manufacturing and production including costs for each activity and correct timescales. Along with justified reasoning for the methods selected for producing the units. Whereas candidates who achieved the lower band marks provided basic planning activities with little consideration for time frames and all tasks required for manufacturing and production with Gantt charts and critical path analysis displaying gaps in knowledge and understanding.

Candidates were required to demonstrate planning and preparation of their programme of work and incorporate health and safety, quality control, key stages for manufacturing and waste management. Candidates who achieved the lower band marks provided limited information to demonstrate planning lacking depth with health and safety, quality control and environmental considerations not well explained. Candidates who achieved the higher band marks provided comprehensive supporting statements demonstrating understanding of health and safety including legislation and standards with supporting risk assessments, along with health and safety regulations required for the specific units.

Actions providers can take to support assessment preparation for future series:

Providers are advised to ensure candidates improve their planning techniques by ensuring candidates understand the importance of timings, cost breakdowns, and clear interdependencies between tasks. Emphasise the importance of creating realistic and well-explained plans that are easily understood. Providers could also provide candidates with instruction and practice on accurate critical path analysis and comprehensive risk assessments, to help candidates provide strong, evidence-based justifications for their chosen manufacturing methods, linking these choices to project requirements and industry best practices. They could also ensure candidates can focus on the correct and precise use of technical terminology, ensuring that manufacturing steps, specialist equipment, and health and safety measures are clearly and comprehensively explained, rather than merely listed.

Task 4 – Present:

Candidates were required to produce and deliver a presentation which addressed the task brief. The presentation was the best responded to and the strongest area for most candidates. A full range of marks was observed, with most candidates scoring the high end of band 2 descriptor (4 marks).

Most Candidates who performed well and achieved the higher band marks were confident using positive non-verbal communication and concise content in a logical order. Whereas candidates who achieved the lower band marks were reading from their presentations, some swaying or lacking eye contact and lacking technical information. Many candidates who achieved the higher band marks were able to fluently and concisely communicate their projects using technical language throughout. Some candidates who achieved the lower band marks presented their proposals with unclear images, inconsistent fonts and on occasion unclear information. Overall, most candidates who achieved the higher band marks produced professional presentations with clear structure, sufficient text and images to convey ideas. When achieving the higher band marks candidates demonstrated good reflective explanations of how their design proposals met the requirements of the design criteria, including explanation of the challenges faced and improvements needed.

Actions providers can take to support assessment preparation for future series:

Providers are advised to ensure candidates have the opportunity to develop their presentation skills including the production of presentations and presenting information to an appropriate audience. There should be a particular focus on non-verbal communication, including maintaining eye contact and minimising swaying, to build confidence and engagement. Candidates should be encouraged to tailor technical language and content specifically to their intended audience.

Providers could offer clear guidance to candidates on creating professional presentation slides with consistent fonts, clear images, and effective communication of the chosen design. Emphasise how visuals should directly support the narrative. They could also encourage candidates to include sketches, CAD, or 3D models within presentations to support them demonstrating their knowledge, by clearly discussing challenges, and articulate needed improvements.

Maths, English & digital skills:

Evidence across all four tasks is taken into consideration when assessing Maths, English and Digital Skills. Generally, the majority of candidates were within band 2 for all three skills. Maths skills performed slightly lower than the other two skills, and this was generally because some candidates attempt any calculations or when they did they were incorrect. For the English skills. The language was mostly used correctly with technical language present in both written and video evidence. Where candidates scored maximum marks for English, it was noted that the candidates articulated information well in both their written report and verbal presentation with clarity and were also error free. Terminology was technical and consistent with the intended audience considered. Candidates utilised digital skills, when producing the CAD drawing, planning chart (usually in excel) and the presentation using PowerPoint. It became evident that some candidates struggled to improve their Digital skills

candidates could have used a wider variety of digital systems or more advanced techniques in systems used, such as hyperlinks, contents, heading and subheadings.

Actions providers can take to support assessment preparation for future series:

Providers are encouraged to advise candidates to consistently and correctly use technical terminology. Candidates should also be encouraged to use calculations were requested and to ensure these are correct. Providers should engage with candidates to explore more advanced features of the digital tools they already use.

Best practice and guidance to providers on potential areas for improving performance in assessment

There was an issue with some file conventions for evidence making it difficult for markers to identify evidence. Providers are advised to ensure that candidate documents are uploaded correctly and contain the relevant content and labelled with the correct filename to ensure consistency and ease of access. For example: *Task_1_Research_[Registration numbers #]_[surname]_[first letter of first name]*

In some instances, providers uploaded evidence for the incorrect candidate. Providers should be aware that this could lead to a delay in results being issued. Providers are asked to check the evidence hasn't corrupted prior to upload and that any videos play and have sufficient sound. This should then be declared on the evidence checklist.

Providers are advised to ensure where separate documents or tasks are requested these and uploaded as separate files.

Providers are strongly encouraged to use evidence headers for each task, to allow for ease of identification of candidate evidence and efficiency in marking. All information within the task headers should be completed. Candidate evidence should be included within the header document and not as a separate file.

Providers should complete and submit the ‘Evidence checklist’ and must detail on this where evidence has not been submitted. This is designed to be a checklist of the minimum evidence that is expected for a candidate. The checklist must align to what has been uploaded to the system.

Providers are reminded that each task is marked in isolation and that each task has been weighted in relation to the assessment objectives covered. This information is detailed in the

specification and sample assessments. All tasks are marked separately, so where evidence that originated in another task within the Employer Set Project is produced by a candidate, no marks will be retrospectively awarded for that evidence in previous tasks, despite the knowledge or skills that it may demonstrate. The only evidence considered for the marking of an individual task is what is listed within the ‘what must be produced for marking’ section within each marking grid.

Providers are advised to ensure the tutor and candidate both sign and date Declarations of Authenticity once the assessment has been completed. This confirms that the assessment has been conducted in line with the stipulated conditions and guidance. Each candidate only requires one declaration each, declarations are not required for each task. Providers only have to upload the declaration as evidence of compliance to the assessment conditions, there is no need to upload further evidence such as records of the candidates search history. If City and Guilds have concerns relating to the conduct of the assessment and require further evidence, we will contact Providers for this.

Providers are encouraged to develop candidates math skills. Applied mathematics in project related settings will prepare candidates for the ESP set up. Units in calculations and some dimensional analysis should be a mathematical skills focus.

Support materials

Sample and Past ESP Assessments:
It is recommended that Providers utilise and deliver the **sample ESP** as well as **past ESPs** as formative assessment to support candidates in preparation for summative assessment.

Sample and past ESPs: T Level Technical Qualification in Engineering and Manufacturing (Core) qualifications and training courses | City & Guilds (cityandguilds.com)

Exemplar ESP Assessments:
It is also recommended that Providers utilise the **exemplar ESP Assessments** to help understand the standard that was required in the Summer 2023 assessment series to achieve an A and E grade.

8730-035 ESP A grade exemplar: https://www.cityandguilds.com/-/media/productdocuments/engineering/mechanical/8730/assessment-materials/employer-set-project-exemplars/design-and-development-for-engineering-and-manufacturing/8730-035-esp-a-grade-exemplar-summer-2024-v1-0-pdf.pdf

8730-035 ESP E grade exemplar: https://www.cityandguilds.com/-/media/productdocuments/engineering/mechanical/8730/assessment-materials/employer-set-project-exemplars/design-and-development-for-engineering-and-manufacturing/8730-035-esp-e-grade-exemplar-summer-2024-v1-0-pdf.pdf

TQ Employer-Set Project Assessment Process Guide:
The guide gives support to Providers in preparing for and delivering T Level Employer-Set Projects.

Link: TQ Employer-Set Project Assessment process guide (cityandguilds.com)

Events and Webinars:
City & Guilds run free webinars and events throughout the year on preparing for and delivering the T Level Employer Set Projects. The below link provides details on upcoming in person events, live webinars, on-demand webinars and preparation for the ESP assessment.

Link: Events and webinars - T Levels | City & Guilds (cityandguilds.com)

Grade boundaries

The table below shows the grade mark ranges for the Employer-Set Project – **for the summer 2025 series.**

Grade	Mark range
A*	71-90
A	63-70
B	55-62
C	47-54
D	39-46
E	31-38
Unclassified (U)	0-30

8730-035 Design and Development for Engineering and Manufacturing

The T Levels Technical Qualification (TQ) in Engineering and Manufacturing core is made up of the below sub-components (and weightings).

- Exam (70%)
- Employer-Set Project (30%)

UMS grade boundaries

The table below shows the UMS values available for grades in the sub-components. It also shows the UMS values required to achieve each grade for the overall Core. This table will not vary across the series, the values are fixed for this TQ.

Grade boundary	Exam sub-component	ESP sub-component	Overall Core
A*	252-280	108-120	360-400
A	224-251	96-107	320-359
B	196-223	84-95	280-319
C	168-195	72-83	240-279
D	140-167	60-71	200-239
E	112-139	48-59	160-199
Unclassified (U)	0-111	0-47	0-159

Get in touch

The City & Guilds Quality team are here to answer any queries you may have regarding your T Level Technical Qualification delivery.

Should you require assistance, please contact us using the details below:

Monday - Friday | 08:30 - 17:00 GMT

T: 0300 303 53 52

E: **technicals.quality@cityandguilds.com**

W: **http://www.cityandguilds.com/tlevels**

Web chat available **here**.

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