



Welcome to the T Level Engineering & Manufacturing

The webinar will begin shortly

October 2022

T-LEVELS

 Institute for Apprenticeship
& Technical Education

Engineering and Manufacturing

An overview for new providers


City &
Guilds


eal

Using the webinar platform

Our action plan supports the planning and delivery stages to prepare for the TQ launch



Send any questions in the question area throughout the webinar



All attendees will be set to mute



Webinar resources will be shared on our website shortly after

Engineering and Manufacturing T Levels Team



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Agenda

- Welcome
- About T levels
- Engineering & Manufacturing Pathway
 - Core
 - Occupational Specialisms
 - Core units and examinations
- Website Navigation
- Industry Placements
- Progression
- How we support you
 - Technical Quality Associates (TQA)
 - Events, Resources, websites.
- Opportunity for Questions

How do T Levels compare?



A Levels

Subject-based qualifications

two years
at local college or school



T Levels

2-year technical programmes at
Local colleges, schools, training providers
80% classroom based
20% in a placement

Includes **Industry Placements** to build attitudes and behaviours and to develop practical skills



Apprenticeship Level 2/3

at least 12 months
work-based training

80% on the job
20% off the job

Followed by possible progression to:



Higher Education



Employment



Progression onto an
Apprenticeship



Higher / Degree
Apprenticeship

How is a T Level different from an Apprenticeship?

T-Levels

- A mainly classroom based technical qualification (80% of the time) with industry placement experience included (20% of the time).
- 16-19
- 2 years (there is also an optional 1-year transition programme).
- Usually September intake.
- Minimum of 315 hours industry placement unpaid.
- Apprenticeships, Higher/degree and Skilled employment

Apprenticeships

- Typically full time paid employment while gaining qualifications in the chosen field. Mainly based in the workplace with 20% off-the-job training.
- 16+ (no upper age limit).
- 12 months + depending on the level, the experience of the apprentice and the delivery model.
- Throughout the year.
- Paid at least the National Minimum Wage for apprentices which includes 20% paid off the-job time too.
- Higher/degree apprenticeships, professional quals' and Skilled employment

Technical Qualification (TQ)



Engineering and Manufacturing T Level programme composition

T Level courses include the following compulsory elements:

A Technical Qualification, which includes:

- **core theory, concepts and skills for an industry area**
- **specialist skills and knowledge for an occupation or career**
- **an industry placement with an employer**

The T Level is a full-time two-year programme.

UCAS tariff points will be allocated and will be equivalent in value to three A Levels.

Students will also be required to work towards the attainment of maths and English if they have not already achieved grade 4 at GCSE, as they do on other 16 to 19 programmes.

Core (680 GLH) / (1000 TQT)

50% Total TQ time

Graded	A* - E
Paper 1	Maths & Science
Paper 2	Engineering Concepts
ESP	Employer Set Project

Covers concepts and theories including core skills.

Assessment:

External set exam and employer set project marked by C&G

Occupational specialism (680 GLH) / (1000 TQT)

50% Total TQ time

Graded Pass/merit/distinction
Based on occupational maps

Covers practical skills and knowledge in a specialist occupational area.

Assessment:

Synoptic assignment external set and marked by centres and moderated by C&G

Industry Placement

315-420 hours
Min 45-60 days

Maths and English

GCSE or Functional Skills Level 2
(Continue to study as part of the condition of funding)

Tutorial- Employability enrichment, and pastoral hours

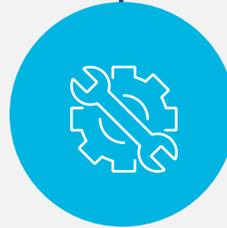
Technical Qualification overview for Engineering:

Engineering Core Component (8730)

Pathways:



Design & Development for
Engineering and
Manufacturing (8714)



Maintenance, Installation &
Repair for Engineering and
Manufacturing (8712)



Engineering, Manufacturing,
Processing and Control (8713)

Learners must complete:

- Engineering Core
- 1 Occupational specialism within a pathway

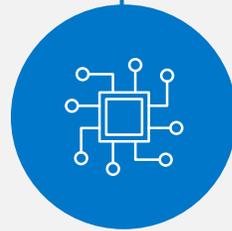
Route: Engineering and Manufacturing

PATHWAY -Design and Development for Engineering & Manufacturing (8730 / 8714)

Occupational Specialisms



Mechanical Engineering



Electrical & Electronic
Engineering



Control & Instrumentation
Engineering



Structural Engineering

Route: Engineering and Manufacturing

PATHWAY - Maintenance, Installation and Repair for Engineering and Manufacturing (8730 / 8712)

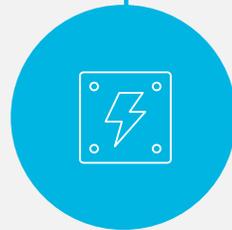
Occupational Specialisms



Mechanical



Mechatronic



Electrical & Electronic



Control & Instrumentation



Light & Electric Vehicle

Route: Engineering and Manufacturing

PATHWAY – Engineering, Manufacturing, Processing and Control (8730/8713)

Occupational Specialisms



Fitting & Assembly
Technologies



Machining & Tool Making
Technologies



Composites Manufacturing
Technologies



Fabrication & Welding
Technologies

T Level Technical Qualifications

Maintenance, Installation and Repair for Engineering and Manufacturing	
8730 - 12	Core
8712 - 31	Mechanical
8712 - 32	Mechatronics
8712 - 33	Electrical & Electronics
8712 - 34	Control & Instrumentation
8712 - 35	Light & Electric Vehicles

Engineering, Manufacturing, Processing and Control	
8730 - 13	Core
8713 - 31	Fitting and Assembly Technologies
8713 - 32	Machining and Toolmaking Technologies
8713 - 33	Composites Manufacturing Technologies
8713 - 34	Fabrication and Welding Technologies

Design and Development for Engineering	
8730 - 14	Core
8714 - 31	Mechanical Engineering
8714 - 32	Electrical & Electronics Engineering
8714 - 33	Control & Instrumentation Engineering
8714 - 34	Structural Engineering

Registration information-
Core first before OS



Technical Qualification - Core

Element	Title	GLH
1	Working within the engineering and manufacturing sectors	30
2	Engineering and manufacturing past, present, and future	30
3	Engineering representations	40
4	Essential mathematics for engineering and manufacturing	90
5	Essential science for engineering and manufacturing	90
6	Materials and their properties	60
7	Mechanical principles	35
8	Electrical and electronic principles	35
9	Mechatronics	30
10	Engineering and manufacturing control systems	30
11	Quality management	30
12	Health and safety principles and coverage	60
13	Business, commercial and financial awareness	30
14	Professional responsibilities, attitudes, and behaviours	15
15	Stock and asset management	15
16	Continuous improvement	30
17	Project and programme management	30



Core Content Examination

Paper 1 –
 Maths and Science Principles for
 Engineering (6 Elements) (2hrs 30mins)

Paper 2 –
 Engineering in Context
 (11 Elements) (2hrs 30mins)

17 Elements in total to make up the core

Assessment	Overall contribution
Core examination 1	35%
Core examination 2	35%
Employer-set project	30%

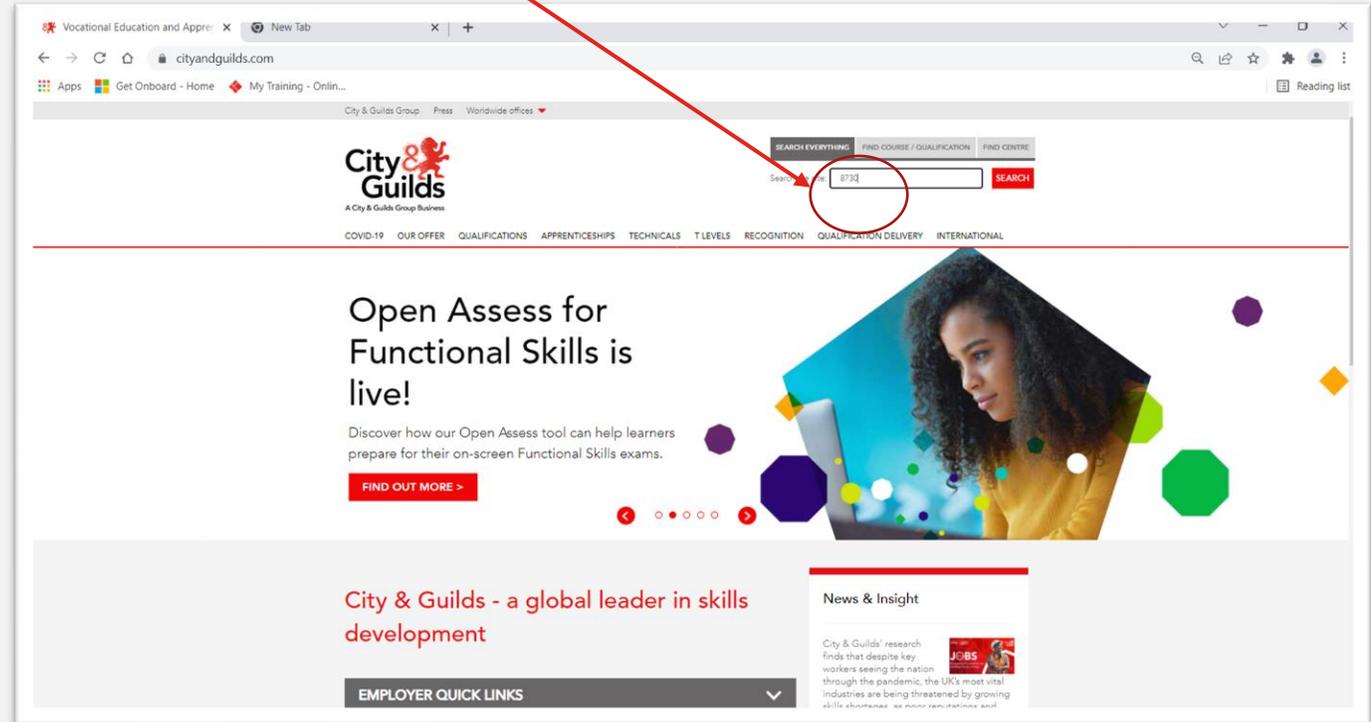
Element – Paper 1		GLH
4	Essential mathematics for engineering and manufacturing	90
5	Essential science for engineering and manufacturing	90
6	Materials and their properties	60
7	Mechanical principles	35
8	Electrical and electronic principles	35
9	Mechatronics	30

Element – Paper 2		GLH
1	Working within the engineering and manufacturing sectors	30
2	Engineering and manufacturing past, present, and future	30
3	Engineering representations	40
10	Engineering and manufacturing control systems	30
11	Quality management	30
12	Health and safety principles and coverage	60
13	Business, commercial and financial awareness	30
14	Professional responsibilities, attitudes, and behaviours	15
15	Stock and asset management	15
16	Continuous improvement	30
17	Project and programme management	30

Website Navigation

Website Navigation – Core Components

From the homepage you can search for the qualification 8730



Then select the qualification

[T Level Technical Qualification in Engineering and Manufacturing \(Core\) \(8730\)](#)

The T Level Technical Qualification in Engineering and Manufacturing (Core) is a mandatory component required for completion of any of the three T Level Technical Qualifications in Engineering and Manufacturing. Completion of the Core component is a requirement for learners completing a full T

[Level 3](#)

Website Navigation – Core Components

The screenshot shows the City & Guilds website page for the T Level Technical Qualification in Engineering and Manufacturing (Core) (8730). The browser address bar shows the URL: cityandguilds.com/qualifications-and-apprenticeships/engineering/mechanical/8730-t-level-technical-qualification-in-engineering-and-manufacturing-core#tab=information. The page features a search bar at the top with the text "SEARCH EVERYTHING", "FIND COURSE / QUALIFICATION", and "FIND CENTRE". Below the search bar is a navigation menu with tabs for "INFORMATION" and "DOCUMENTS". The main content area is titled "T Level Technical Qualification in Engineering and Manufacturing (Core) (8730)" and includes a "Last Updated: 07 Feb 2022" notice. The page also features a "For Learners" section with a search box for "Postal code, town or city" and a "FIND A CENTRE" button. A "Related Qualifications" section is visible at the bottom, listing "> (4510) Level 2 Certificate in".

T Level Technical Qualification in Engineering and Manufacturing (Core) (8730)

INFORMATION DOCUMENTS

Here you can find all documents related to this suite of qualifications.

By clicking on the section headings below, you can access a variety of documents such as the qualification handbooks and assessment materials, Statements of Purpose, and recognition letters from industry and employers.

Some documents may be password protected. Passwords can be retrieved by logging in to walled-garden.com and visiting the Administration section of the relevant qualification catalogue page.

Interested in delivering this qualification?

Find out more about [how to become an approved City & Guilds centre](#) or fill out our [online customer application form](#).

Assessment Materials

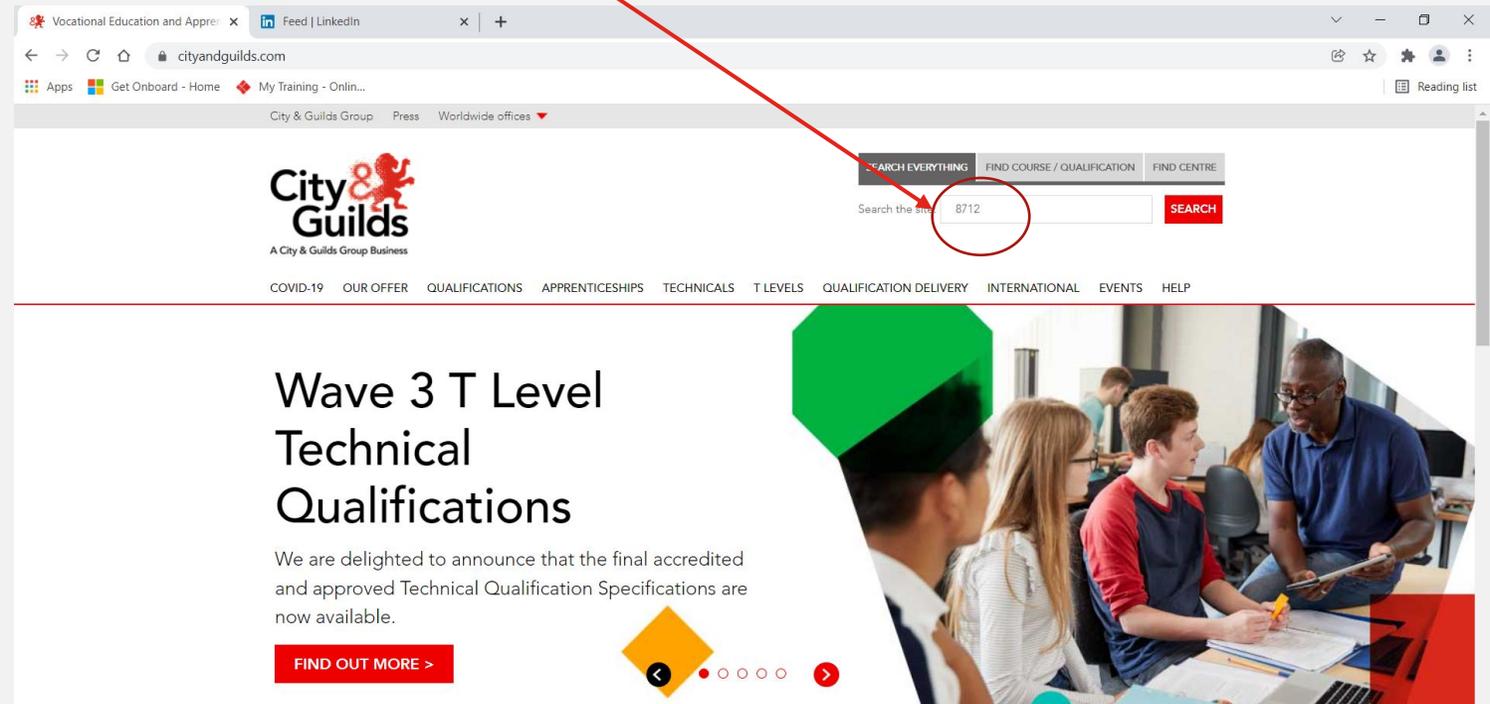
- Core Exams
- Employer Set Project

Centre Documents

- Design and Development for Engineering and Manufacturing 8714
- Engineering Manufacturing Processing and Control 8713
- Maintenance Installation and Repair for Engineering Manufacturing 8712

Website Navigation – Pathways

From the homepage you can search for the qualification 8712 (MIR pathway)



Then select the qualification

[T Level Technical Qualification in Maintenance, Installation and Repair for Engineering and Manufacturing \(8712\)](#)

The T Level Technical Qualification in Maintenance, Installation and Repair for Engineering and Manufacturing allows learners to gain an understanding of what is needed to work within the engineering industry. Topics covered include maintenance, installation and repair requirements, fault

[Level 3](#)

Website Navigation – MIR pathway

The screenshot shows the City & Guilds website interface. At the top left is the City & Guilds logo. To the right is a search bar with the text 'SEARCH EVERYTHING', 'FIND COURSE / QUALIFICATION', and 'FIND CENTRE'. Below the search bar is a navigation menu with links for ABOUT, OUR OFFER, QUALIFICATIONS (highlighted), APPRENTICESHIPS, TECHNICALS, T LEVELS, RECOGNITION, QUALIFICATION DELIVERY, and INTERNATIONAL. Below the navigation menu is a breadcrumb trail: Home > Qualifications > Engineering > Mechanical > T Level Technical Qualification in Maintenance, Installation and Repair for Engineering and Manufacturing.

T Level Technical Qualification in Maintenance, Installation and Repair for Engineering and Manufacturing (8712)

INFORMATION DOCUMENTS

Last Updated: 25 Mar 2022

The T Level Technical Qualification in Maintenance, Installation and Repair for Engineering and Manufacturing allows learners to gain an understanding of what is needed to work within the engineering industry. Topics covered include maintenance, installation and repair requirements, fault detection and diagnosis, isolation and resolution methods and communication for maintenance, installation and repair activities.

This qualification is aimed at learners aged 16-19-years old who wish to work in the engineering and manufacturing industry.

A learner who completes this qualification is well placed to develop to full occupational competence with further correct support and training.

T Levels are new courses which will follow GCSEs and will be equivalent to three A Levels. These two-year courses have been developed in collaboration with employers and businesses so that the content meets the needs of industry and prepares learners for work.

This qualification forms a significant part of the T Level and City & Guilds are responsible for its development and ongoing operational delivery.

All other parts of the T Level, as listed below, will need to be achieved by a learner for the Department for Education to award successful completion. It is important to note that City & Guilds do not have responsibility of delivery for the other parts of the T Level but will continue to support centres where they can on all aspects of T Level delivery.

Additional mandatory parts of the T Level that need to be achieved:

Explore our wider maths & English offer

Our maths & English qualifications underpin our apprenticeships and technical qualifications. They build learners' confidence with the core skills required for employment, including the capacity to problem solve and use technology effectively. They are also key to triggering conditions of funding.

FIND OUT MORE

For Learners

Where can you take this course?

Postal code, town or city

FIND A CENTRE

Related Qualifications

Browse some of our related qualifications:

> (4510) Level 2 Certificate in

T Level Technical Qualification in Maintenance, Installation and Repair for Engineering and Manufacturing (8712)

INFORMATION

DOCUMENTS

Here you can find all documents related to this suite of qualifications.

By clicking on the section headings below, you can access a variety of documents such as the qualification handbooks and assessment materials, Statements of Purpose, and recognition letters from industry and employers.

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Assessment Materials

8712-31 Mechanical

Guide Standard Exemplification Materials

Sample assessments

8712-32 Mechatronic

8712-33 Electrical and Electronic

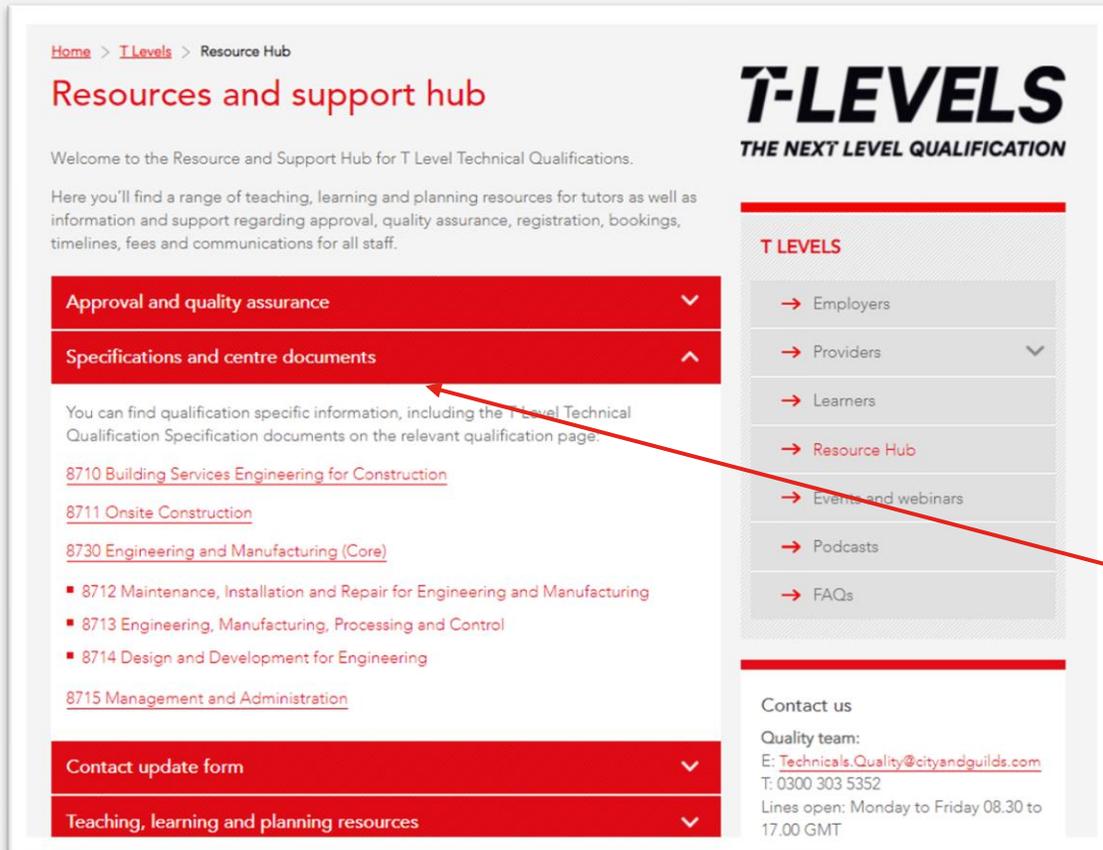
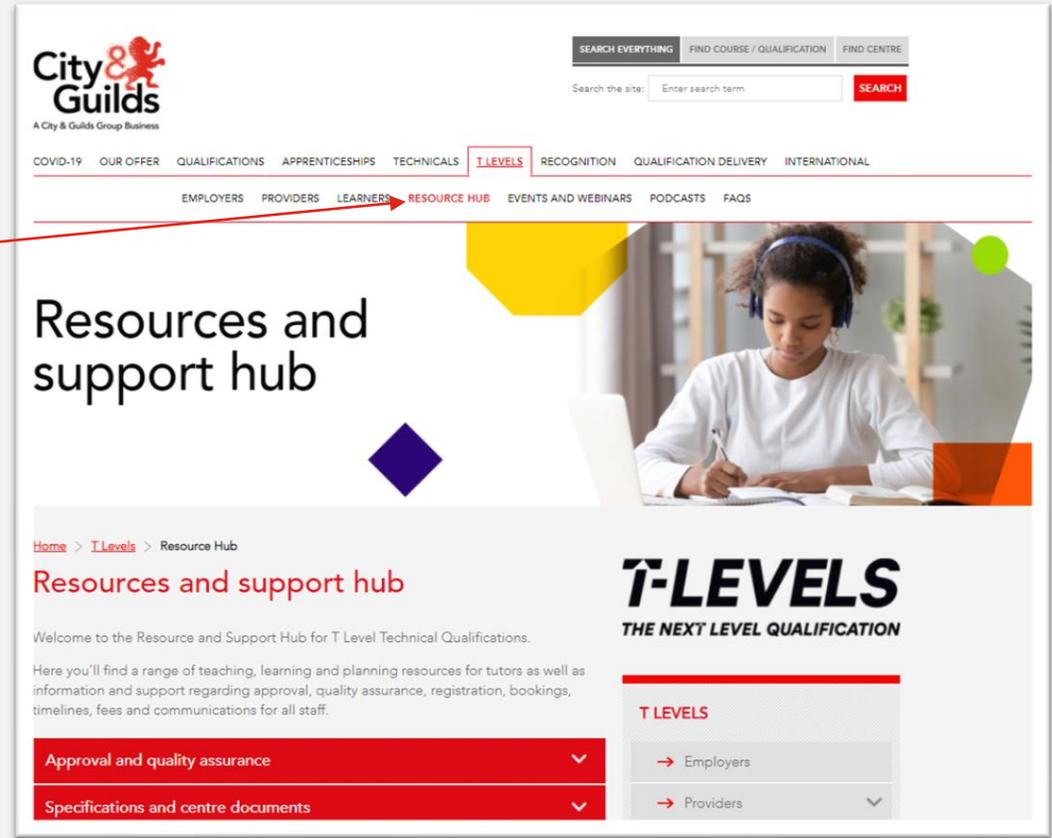
8712-34 Control and Instrumentation

8712-35 Light and Electric Vehicles

Centre documents

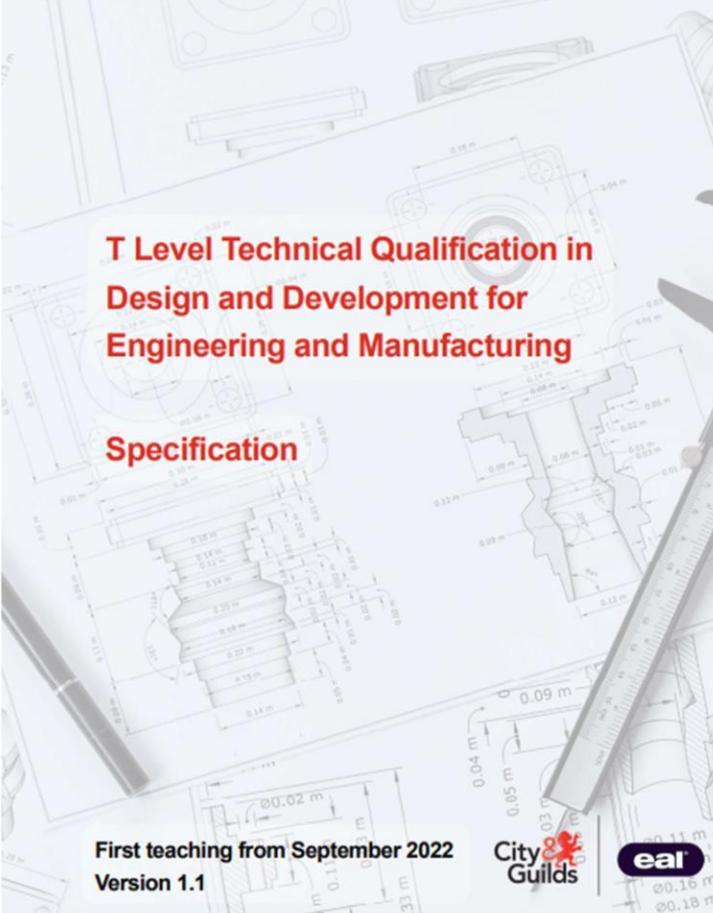
Website Navigation

Or navigate through the C&G T Level Resource Hub webpage



Then select specifications and centre documents

T-LEVELS | Institute for Apprenticeships & Technical Education



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

Specification

First teaching from September 2022
Version 1.1

City & Guilds | eal

T-LEVELS | Institute for Apprenticeships & Technical Education



T Level Technical Qualification in Engineering, Manufacturing, Processing and Control

Specification

First teaching from September 2022
Version 1.1

City & Guilds | eal

T-LEVELS | Institute for Apprenticeships & Technical Education



T Level Technical Qualification in Maintenance, Installation and Repair for Engineering and Manufacturing

Specification

First teaching from September 2022
Version 1.1

City & Guilds | eal

T-LEVELS

 Institute for Apprenticeship
& Technical Education

Industry Placement


City &
Guilds

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Industry Placement

Every T Level includes an industry placement with an employer focused on developing the practical and technical skills required for the occupation. These will last a minimum of 315 hours (approximately 45 days) but can last longer.

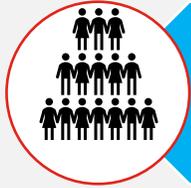
Providers will ensure learners have an industry placement and will support employers offering industry placements.

This will include assistance with the necessary paperwork, a careful planning process and support with designing the industry placement.

The Education and Skills Funding Agency (ESFA) and National Apprenticeship Service (part of ESFA) are working with employers and providers on industry placements.

Read the updated Industry placement policy (March 2021)

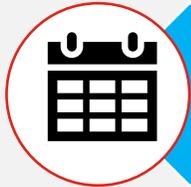
WHAT ARE INDUSTRY PLACEMENTS?



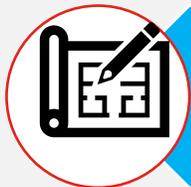
Time spent by a 16-19 year old T Level student, learning and working in an organisation.



Real industry experience- learning and working in a business external to education provider, making meaningful contributions to an organisation



Minimum of 315 hours (approx. 45 working days) completed via various models; **day release, block or mixed-** whatever suits the employer and the school or college over the 2 year qualification.



Occupationally-specific – developing practical and technical skills in the T Level that the student is taking.



No legal requirement or expectation for industry placements students to be paid – but employers can choose to if they wish.

INDUSTRY PLACEMENT DELIVERY FLEXIBILITIES

AFFECTS	FLEXIBILITY	DETAILS
Digital and Engineering	Route Level Placements	Placement can develop the essential and transferable knowledge and skills studied at route level (e.g. relevant to any Digital pathways), as opposed to those only relevant to their particular specialism.
All Routes	Multiple Employers	Placement can be shared between two employers but must have single set of learning objectives. Allows students to experience their specialism in a variety of circumstances e.g. large employer and SME
All Routes	Work Taster Activities	Up to a maximum of 35 hours can be counted towards a student's total number of placement hours if relevant to the pathway e.g. employer visits, shadowing,
All Routes	Relevant Part Time Work	Can be counted towards the required hours of placement, as long as the job is occupationally related to the students' chosen specialism at Level 3, appropriate learning objectives are set and worked towards, and it takes place at an environment away from the provider setting.
Construction and Engineering	Use of Skills Hubs	Can begin placement within an established skills hub or employer's training centre for a maximum of 105 hours. These skills hubs/training centres must be established and/or led, managed, and supervised by external employers. For example, the CITB's Construction Skills Hubs .



Useful tips for providers to look for within a placement

Does the employer and placement.....

- offer a safe working environment
- incorporate an induction
- offer relevant tasks and projects for students that will help them learn the knowledge and skills
- offer appropriate equipment and resources
- provide a mentor or supervisor which can support the student
- ensure a review procedure is in place (for both the learner and the provider)
- If successful can this placement be used again?



Progression

City & Guilds & EAL continue to work with IFATE and DFE regarding progression routes for Engineering & Manufacturing T Levels.

Progress is now swiftly underway and moving forward at a good pace.

DfE, IfATE, and Employer Advisory Group all recognise that progression from a Engineering & Manufacturing T Level will be into one of the routes below.

1. Apprenticeship in Occupational Specialism/Trade*
2. Higher Apprenticeship (L4, L5 & L6)
3. Higher Education
4. Employment

* For progression into an apprenticeship the centre and employer will conduct as always an initial assessment and recognise prior learning. The centre, employer and apprentice will then agree on the duration of the accelerated apprenticeship.



How we support you

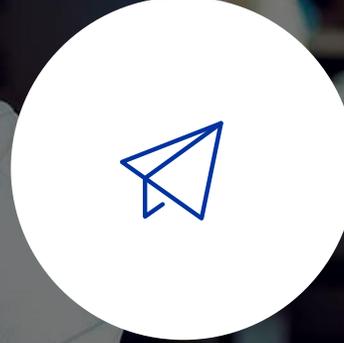
Updates/Topics/Networks



Blended approach to communication



Provider networks and events

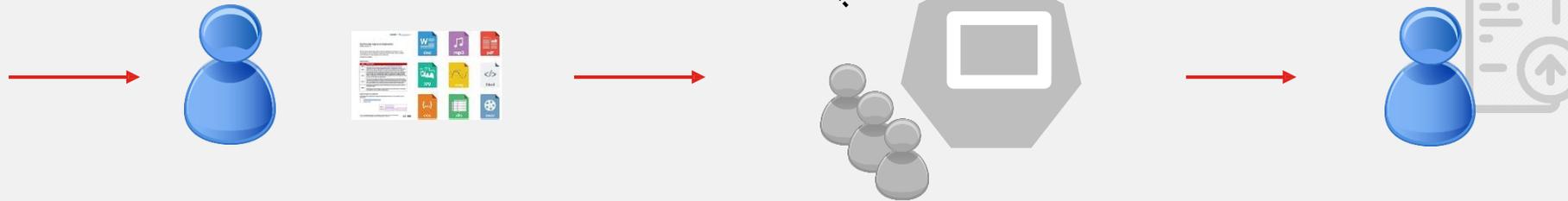


e-bulletin content and email updates



Website

TQA Support



Part 1

Desk based approval review

- Reviews the approval application
- Analyses the approval criteria and any criteria not met
- Review your self-assessment action plan
- Reviews your key staff
- Reviews all evidence submitted on the portal inc. CV/CPD evidence
- Starts to formulate action plan
- Plans your approval activities with you
- If the TQA is allocated to complete the 'provider approval' they will also review evidence for this

Part 2

Approval activity

Provider visit

(BSE, Construction and Engineering)

Remote activities

(Management & Administration)

- This will include some form of tour to review facilities and physical resources for visits. For M&A you'll need to provide evidence on the portal (i.e images etc)
- Meetings with key delivery staff, to discuss approval, delivery etc
- Discuss curriculum planning, schemes of work.
- Carry out any additional checks for Occupational Specilaims

Part 3

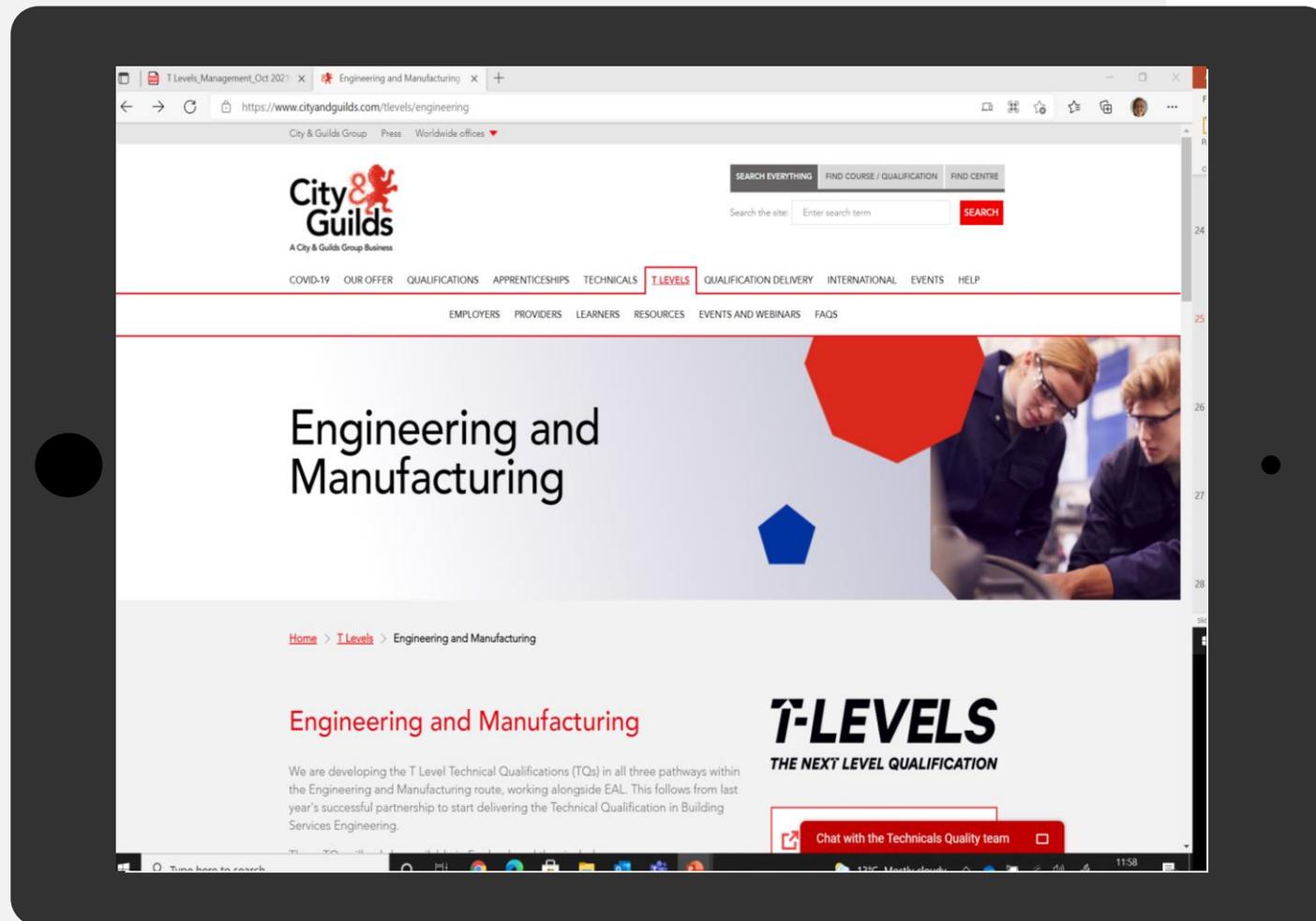
Approval report

- TQA will complete the approval report, making their recommendation on approval.
- For OS' they can be approved on an individual basis
- They will provide a SMART action and improvement plan which is referenced to the approval criteria
- The Quality team reviews the report, confirms the approval decision and communicates this with your T level Primary Contact

Support and Guidance

Ready to support eligible providers and stakeholder engagement

- Timeline
- Provider focus groups
- Employer Industry Boards
- e-bulletins
- Specification
- Resource Hub
<https://www.cityandguilds.com/tlevels/resources>
- Learner flyer [t-levels-learner-flyer-engineering-and-manufacturing](https://www.cityandguilds.com/tlevels/learning/learner-flyer-engineering-and-manufacturing)
- Dedicated Technical Advisors



<https://www.cityandguilds.com/tlevels/providers>

Events & Webinars

- Resource development for the core
- Teaching & Learning support for exam component
- Face-to-face events
- Events, networks and webinars are located on our T Level Home page [here](#) under the accordion Engineering & Manufacturing. Here you will also find copies of the slide decks presented in the events, networks and webinars.
- Recorded webinars on our dedicated Engineering Go To Webinar Channel [here](#).
- For the most up to date information regarding future events please register for our T Level e-bulleting at the bottom of this webpage, [here](#).
- **(16.11.22, 14.45-15.45 GMT) [Network event \(recorded\) T Level D & D familiarisation](#)**
- **(17.11.22, 14.45-15.45 GMT) [Network event \(recorded\) T Level familiarisation MIR for Engineering & Manufacturing](#)**
- **(18.11.22, 14.45-15.45 GMT) [Network event \(recorded\) T Level familiarisation MPC for Engineering & Manufacturing](#)**
- **(18.01.23, 14.45-15.45 GMT) [Network event \(recorded\) Curriculum Plan & delivery models](#)**



Websites to Support Providers

T Level Industry Placement Delivery Guidance

[T Level industry placements delivery guidance - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/t-level-industry-placements-delivery-guidance)

Introduction to T levels

[T levels - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/t-levels)

How T Levels are funded

[How T Levels are funded - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/how-t-levels-are-funded)

T Levels capital fund

[T Levels capital fund - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/t-levels-capital-fund)

T Levels resources for teachers and careers advisers

[T Levels resources for teachers and careers advisers - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/t-levels-resources-for-teachers-and-careers-advisers)

T Levels: next steps for providers

[T Levels: next steps for providers - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/t-levels-next-steps-for-providers)

Supporting with delivering T Levels

[Support with delivering T Levels](https://www.gov.uk/guidance/supporting-with-delivering-t-levels)

T Level Transition Programme Framework for 2022 – 2023

[T Level Transition Programme Framework for Delivery 2022 to 2023 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/t-level-transition-programme-framework-for-delivery-2022-to-2023)

ETF Foundation – T Levels

[T Level Professional Development - Education & Training Foundation \(et-foundation.co.uk\)](https://www.et-foundation.co.uk/t-level-professional-development)

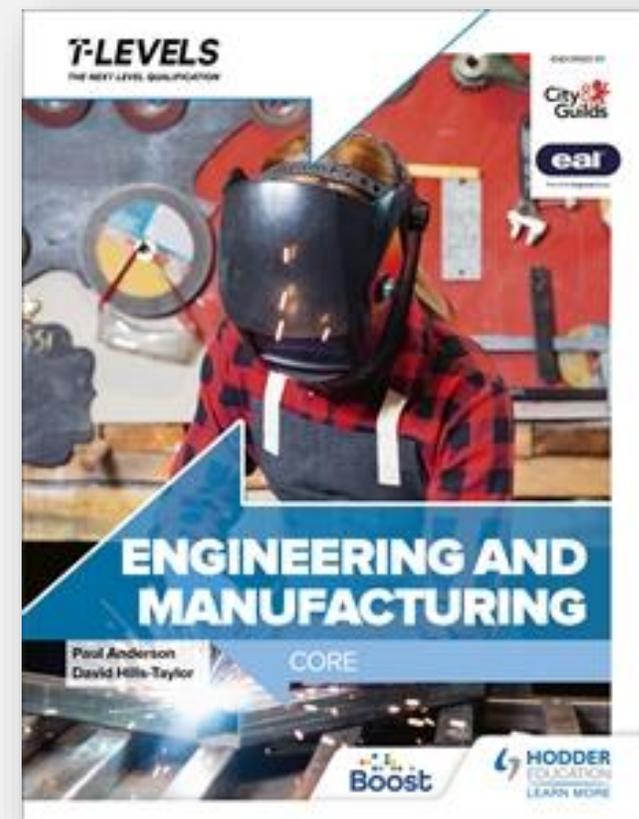
Engineering and Manufacturing T Level: Core Textbook

Tackle the core component of your Engineering and Manufacturing T-Level head on with this comprehensive textbook published in association with City & Guilds.

- Complete coverage of the T Level's core component
- Prepares students for core exams and ESP
- Publishing Spring 2023
- Available in print and digital formats
- Print: 9781398360921 // £34
- Boost eBook: 9781398361058// £11 per year
- From expert authors Paul Anderson and David Hills-Taylor

Contact Gemma Simpson to receive an advance sample chapter:

gemma.Simpson@hoddereducation.co.uk



Visit www.hoddereducation.co.uk/t-levels

T Level Associate Vacancies

Would you like to be involved with supporting the delivery of T-Levels?

- **Principal Moderators / Moderators**

Ensure a standardised and consistent approach to quality assurance, moderation, feedback and processes

- **Technical Qualification Associates (TQAs)**

Review Eligible Provider approval applications, including supplementary evidence and carry out approval and support activities.

- **Chief/Principal Examiners**

Produce and submit assessment materials and participate in all stages of the production process until sign off.

- **Marking Examiners**

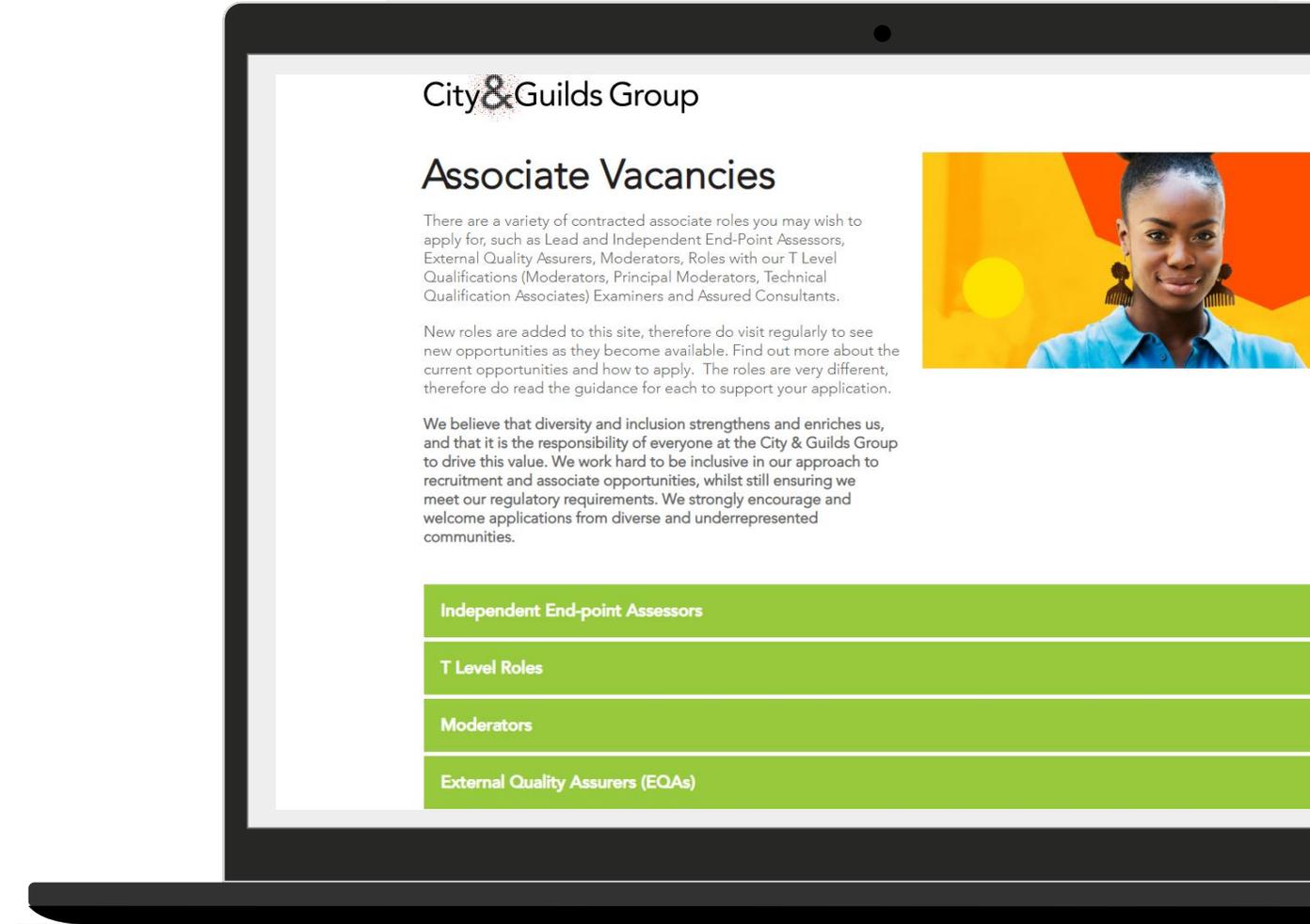
Mark candidates' scripts/evidence in accordance with the agreed marking scheme/criteria within the agreed timescale

For further information, please contact

Samantha.Ashman@cityandguilds.com or

visit our website on the attached link:

[Associate Vacancies | City & Guilds Group Careers](#)



T-LEVELS

 Institute for Apprenticeships
& Technical Education

T-LEVELS

Questions?
Thank you for attending

October 2022

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'T Level' is a registered trademark of the Institute for Apprenticeships
and Technical Education.

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