T Level TQs in Onsite Construction and Building Services Engineering – Familiarisation update

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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
- Skilled Employment
- Progression onto an Apprenticeship
- Higher / Degree Apprenticeship

How is a T Level different from an Apprenticeship?

- T Levels and Apprenticeships are based on the same employer designed standards but will suit different learning styles.
- Apprenticeships are paid work, suitable for learners who know what occupation they want to pursue and wish to train ‘on the job’.
- T Levels are largely classroom based, with a substantive industry placement
- T Levels offer a broader course content, and students will specialise later in their programme. The content of Apprenticeships is narrower and focussed on a specific occupation from the outset.
- T Level is the new ‘gold standard’ in technical education and the technical course of choice for learners in the future.

The Structure of T Levels

T Level programme

- Approximately 1,800 hours over two years
- Learners will need to achieve all elements to receive their T Level certificate.
- Subject content is set by T Level employer panels, developed by Awarding Organisations (AOs), and approved by the Institute for Apprenticeships & Technical Education (“the Institute”). The Institute then oversees the delivery of the qualifications to providers by AOs.

Technical Qualification (TQ)

Between 900-1400 hours / Undertaken in a college / school-based setting

Core Component

- Knowledge and understanding of the concepts, theories and principles relevant to the T Level and the broader route.
- Core skills relevant to the T Level.
- *Assessed through an external examination, and a substantial employer set project (ESP) undertaken in the classroom setting and set by Awarding Organisation (AO) employer panels.*

Occupational Specialism(s)

- Knowledge, skills and behaviours required to achieve threshold competence in an occupational specialism.
- Maths, English and digital skills are included where necessary to achieve threshold competence.
- Students must complete at least one occupational specialism.
- *Assessed synoptically through rigorous practical assignments.*

T Level Industry Placement

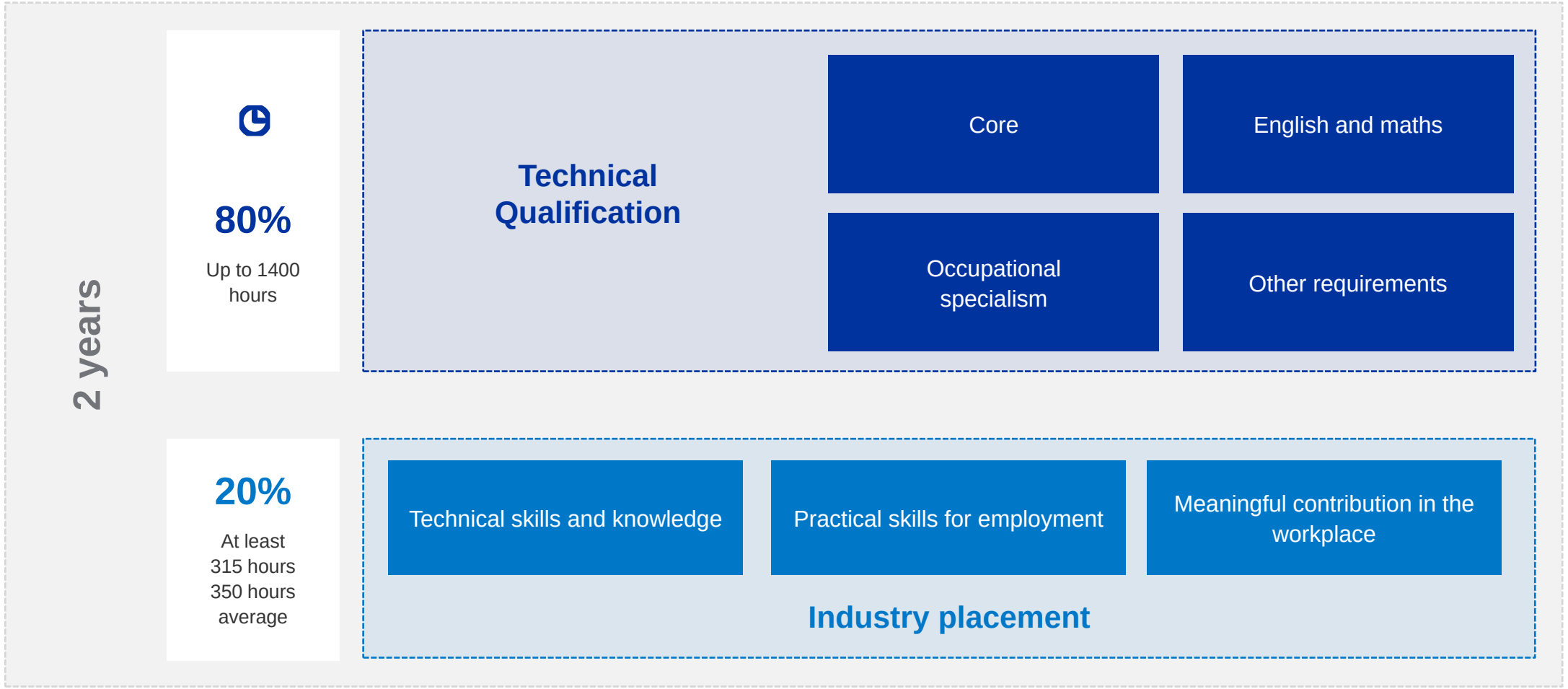
- Undertaken in an employer setting.
- Minimum of 45 days, *between 315-420 hours*.
- Students develop technical skills and apply their knowledge in a workplace environment.
- Provider should pay / contribute to travel and subsistence costs, if not covered by the employer.
- Employers are not expected to pay students

Other Requirements

- T Level panels may set occupation-specific requirements, if they are essential for skilled employment, e.g. a licence to practice qualification or professional qualification.

Employability, Enrichment & Pastoral Requirements

The T Level Programme

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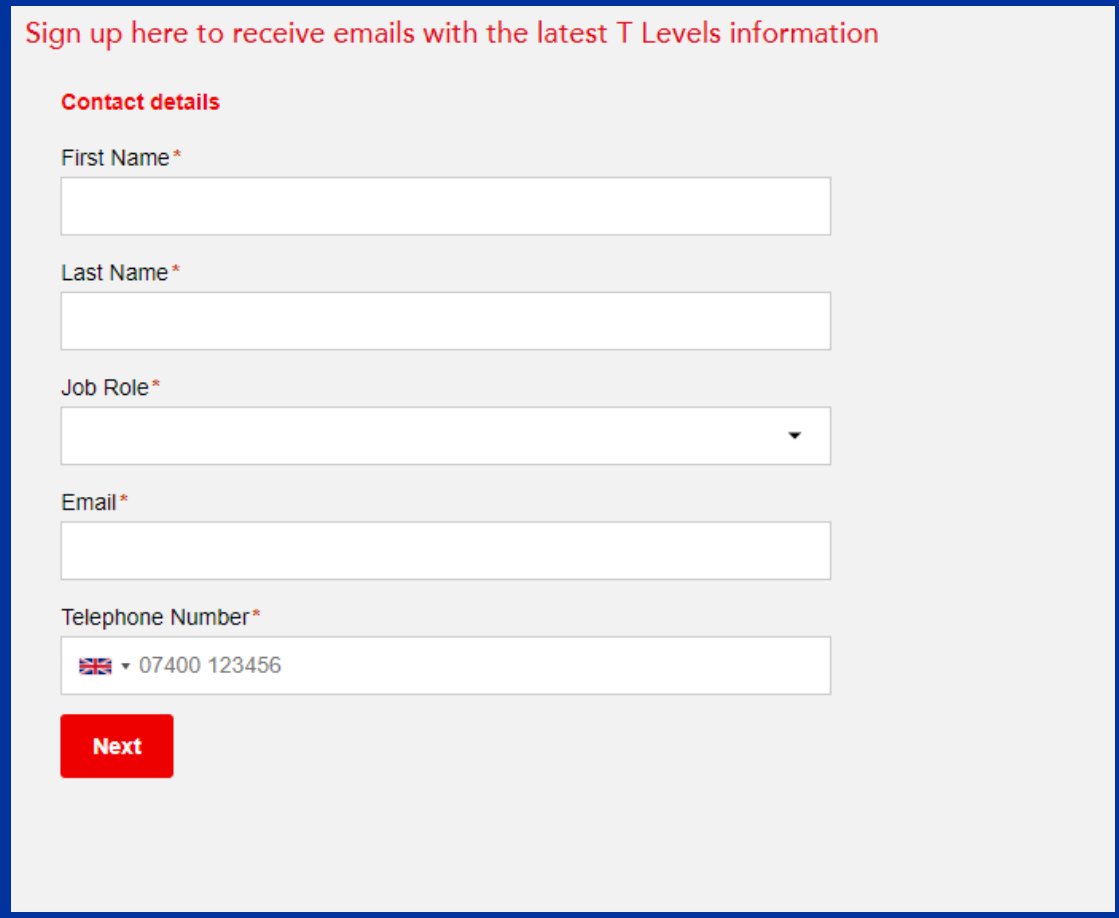
Don’t miss out…

Sign up for T Level information

To ensure you receive all the latest information and updates regarding the Construction On-Site and BSE T Levels including our events, networks and webinars sign up via the link below adding your details into the relevant areas on the webpage.

https://www.cityandguilds.com/tlevels/construction-bse



Developed by Industry for Industry

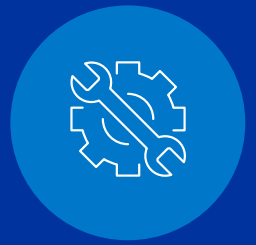
Start your career in Building Services Engineering with a T Level

Overview of the Technical Qualification

To achieve the T Level Technical Qualification in Building Services Engineering (BSE) for Construction you'll need to complete the two components of the TQ. These are known as the core component and the occupational specialism. You'll have the choice of studying one standalone occupational specialism or a combination of specialisms as listed below:

Core

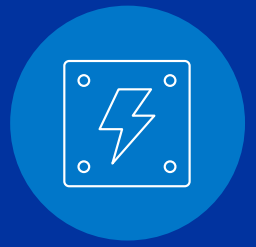
(Assessed by two externally set and marked exams and an employer set project)



Building Services Engineering

Group A Standalone Occupational Specialisms:

Occupational Specialism, either grouped (bottom set) or single (top set) (Which is assessed by a practical assignment for each Occupational Specialism)



Electrotechnical engineering

Electrical and Electronic equipment engineering

Protection system engineering

Gas engineering

Group B Combination Occupational Specialisms:

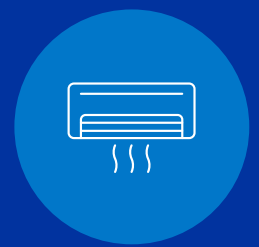
Plumbing engineering

Heating engineering

Heating engineering

Ventilation

Refrigeration engineering



Air condition engineering

Start your career in Onsite Construction with a T Level

Overview of the Technical Qualification

To achieve the T Level Technical Qualification in Onsite Construction you'll need to complete the two components of the TQ. These are known as the core component and the occupational specialism. You'll have the choice of studying one standalone occupational specialism alongside the core component:

Core

(Assessed by two externally set and marked exams and an employer set project)

Onsite Construction

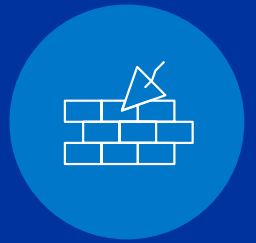
Group B Combination Occupational Specialisms:

(Assessed by an externally set and moderated practical synoptic assignment)

Carpentry & joinery

Plastering

Painting & decorating



Bricklaying

T Level Technical Qualifications

On-site construction	
8711 - 30	**Core**
8711 - 35	Bricklaying
8711 - 36	Carpentry and joinery
8711 - 37	Painting and decorating
8711 - 38	Plastering

Building Services Engineering	
8710 - 30	**Core**
8710 - 32	Electrical and electronic equipment engineering
8710 - 33	Electrotechnical engineering
8710 - 34	Gas engineering
8710 - 35	Plumbing and heating engineering
8710 - 36	Heating engineering and ventilation
8710 - 37	Protection systems engineering
8710 - 38	Air conditioning and Refrigeration engineering
8710 - 32	Electrical and electronic equipment engineering

Registration information- Core first before OS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WHAT ARE INDUSTRY PLACEMENTS?

- Time spent by a 16–19-year-old student, **learning** and **working** in an organisation
- In a **real environment** – with an employer making a meaningful contribution to the organisation
- Minimum of **315 hours** (approx. 45 working days) –average 350 hours.
- **Occupationally-specific** – developing students' practical and technical skills
- Placements can be in **single block**, **day release** or a mix of the two.

WHAT AN INDUSTRY PLACEMENT SHOULD OFFER

A high quality industry placement should:

✓ Give students a chance to **put into practice Level 3 technical skills** that they have learnt as part of their T Level, developing and honing the knowledge and skills they need to **progress**

✓ Give students **credibility** with prospective employers

✓ I**mprove** a student's **confidence, competence** and **employability**

✓ **Give the employer the opportunity to develop and shape young people's skills to build their future workforce** to meet their needs, as well as seeing what the young person is capable of before potentially taking then on as an apprentice or an employee

✓ Give an opportunity for the provider to **ensure that the course equips students** with the **skills employers are look for** and are **ready for the working world**

RESOURCES

- **NAS helpline: 08000 150 600**
- **Industry Placements Policy Statement –** https://www.gov.uk/government/publications/industry-placements-policy-framework
- **Industry Placement guidance / resources (hosted on the AoC website) –** https://www.aoc.co.uk/industry-placements-guidance-resources
- **Industry Placement case study videos on YouTube –** https://www.youtube.com/playlist?list=PL6gGtLyXoeq-rt4HRUDy_MY77BEH7r9Rc
- **Industry Placement Delivery Guidance –** https://www.gov.uk/government/publications/t-level-industry-placements-delivery-guidance
- **T Levels Employer Support website –** https://employerindustryplacements.co.uk/

For any follow up questions, please contact the industry placements policy team at:

- industry.placements@education.gov.uk

Wider provider support found at:

- https://support.tlevels.gov.uk/


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Handbook and Assessment material Construction (Qual code 8711)

https://www.cityandguilds.com/qualifications-and-apprenticeships/construction/construction/8711-t-level-technical-qualification-in-onsite-construction#tab=documents

Course Handbook

300 Onsite construction core

Level:	3
GLH:	400
Assessment method:	Knowledge exam Employer set project

What is the component about?

This component focuses on the learner's knowledge and understanding of contexts, concepts, theories and principles relevant to onsite construction. The component is designed to raise learners' awareness of the industries and develop knowledge and understanding of:

- Fundamental Health & Safety practices associated with carrying out construction work
- Scientific principles related to construction activities
- The construction industry and careers within it
- Principles of sustainability and design, relevant to construction projects
- Information, data and principles of measurements
- Tools, equipment and materials used in construction work
- Legislation, regulations and approved standards that apply to the construction industry

Learners may prepare by asking themselves questions such as:

- How are teams of different specialists co-ordinated to work together on construction projects?
- What are different career pathways and destinations within the construction industry?
- What factors influence whether construction projects are profitable?
- What kind of tasks do Onsite trades perform?
- What tools and equipment Onsite trades use as part of their role?

Core component- Onsite

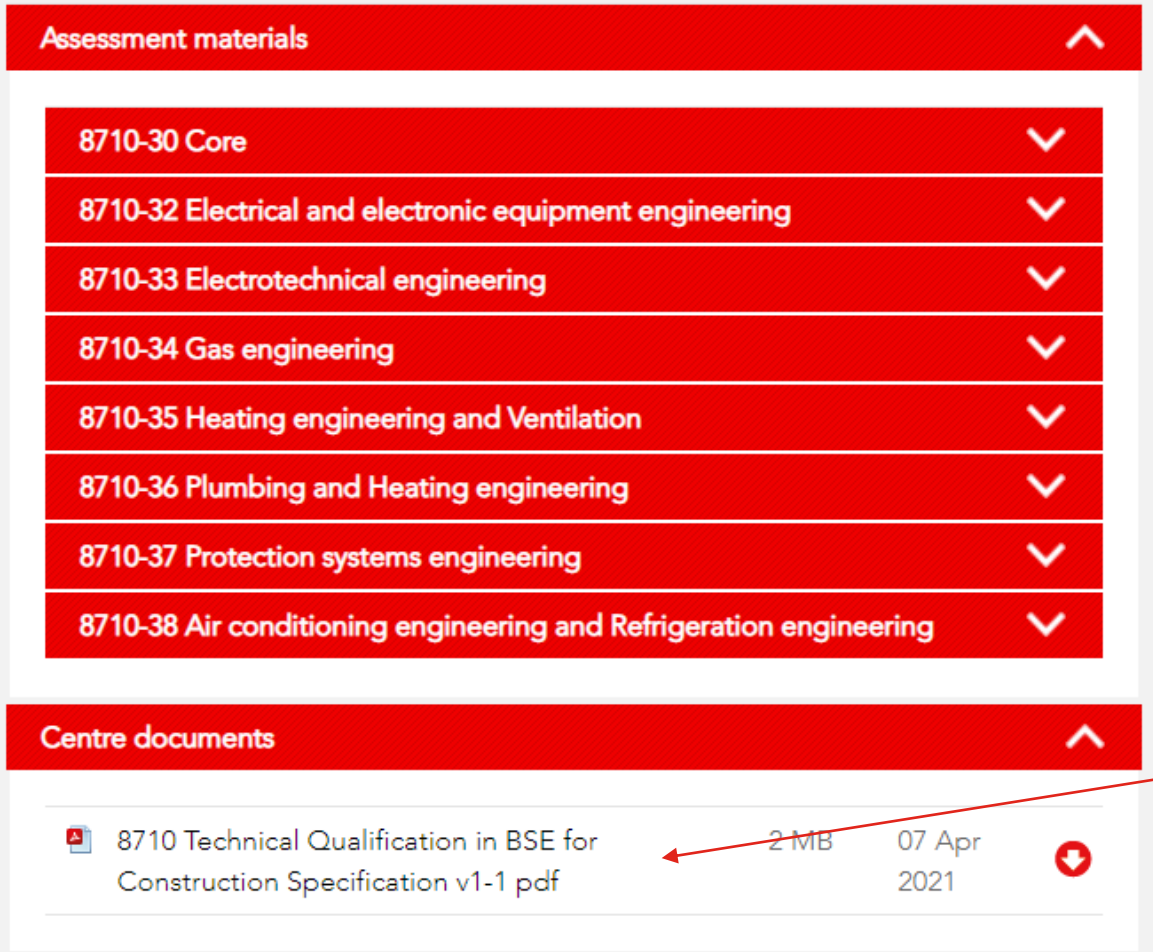
Underpinning knowledge outcomes

On completion of this Onsite Core, learners will understand:

1. Health and safety in construction
2. Construction science principles
3. Construction design principles
4. Construction & the built environment industry
5. Construction sustainability principles
6. Construction measurement principles
7. Building technology principles
8. Construction information and data principles
9. Relationship management in construction
10. Digital technology in construction
11. Construction commercial/business principles

Handbook and Assessment material BSE (Qual code 8710)

https://www.cityandguilds.com/qualifications-and-apprenticeships/building-services-industry/electrical-installation/8710-t-level-technical-qualification-in-building-services-engineering-for-construction#tab=documents



Course Handbook

350 Building Services Engineering Core

Level:	3
GLH:	520
Assessment method:	Two Knowledge tests Employer-set project

What is the component about?

This component focuses on the learner's knowledge and understanding of contexts, concepts, theories and principles relevant to Onsite construction and Building Services Engineering (BSE). The component is designed to raise learners' awareness of the industries and develop knowledge and understanding of:

- Fundamental Health and Safety practices associated with carrying out construction and BSE work
- Scientific principles related to construction activities
- The construction industry and careers within it
- Principles of sustainability and design, relevant to construction projects
- Information, data and principles of measurements
- Tools, equipment and materials used in BSE work
- Legislation, regulations and approved standards that apply to BSE systems.

Learners may prepare by asking themselves questions such as:

- How are teams of different specialists co-ordinated to work together on construction projects?
- What the different career pathways and destinations are within the construction industry?
- What factors influence whether construction projects are profitable?
- What kind of tasks does a building service engineers perform?
- What systems do Building Service Engineers work on?
- What tools and equipment building service engineers use as part of their role?

Core component- BSE

Underpinning knowledge outcomes

On completion of the BSE Core, learners will understand

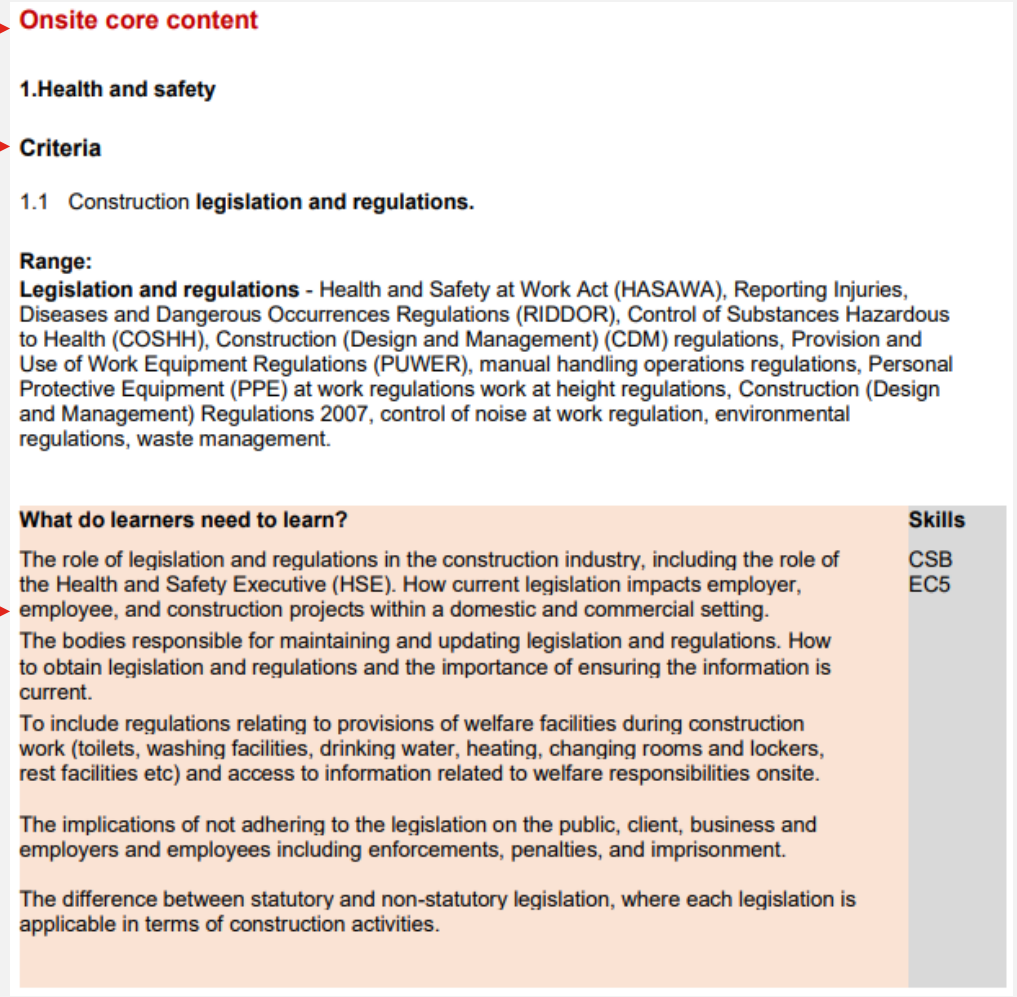
1. Health and safety in construction
2. Construction science principles
3. Construction design principles
4. Construction and the built environment industry
5. Construction sustainability principles
6. Construction measurement principles
7. Building technology principles
8. Construction information and data principles
9. Relationship management in construction
10. Digital technology in construction
11. Construction commercial/business principles
12. Building Services Engineering (BSE) systems
13. Maintenance principles
14. Tools, equipment and materials

Qualification handbook & Core component layout

Learning Outcome

This section of the specification outlines the subject or topic that needs to be delivered and assessed. Criteria are often supported by ‘range’

What do learners need to learn? The primary purpose of these sections is to support the delivery of the content in the criteria.
These sections provide context in relation to the depth and breadth to which a subject or topic needs to be taught.



Onsite core content

1.Health and safety

Criteria

1.1 Construction **legislation and regulations.**

Range:
Legislation and regulations - Health and Safety at Work Act (HASAWA), Reporting Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR), Control of Substances Hazardous to Health (COSHH), Construction (Design and Management) (CDM) regulations, Provision and Use of Work Equipment Regulations (PUWER), manual handling operations regulations, Personal Protective Equipment (PPE) at work regulations work at height regulations, Construction (Design and Management) Regulations 2007, control of noise at work regulation, environmental regulations, waste management.

What do learners need to learn?	Skills
The role of legislation and regulations in the construction industry, including the role of the Health and Safety Executive (HSE). How current legislation impacts employer, employee, and construction projects within a domestic and commercial setting.	CSB EC5
The bodies responsible for maintaining and updating legislation and regulations. How to obtain legislation and regulations and the importance of ensuring the information is current.	
To include regulations relating to provisions of welfare facilities during construction work (toilets, washing facilities, drinking water, heating, changing rooms and lockers, rest facilities etc) and access to information related to welfare responsibilities onsite.	
The implications of not adhering to the legislation on the public, client, business and employers and employees including enforcements, penalties, and imprisonment.	
The difference between statutory and non-statutory legislation, where each legislation is applicable in terms of construction activities.	

provides the detail of the information
required to be delivered as part of that topic. For example, with BSE systems as the topic, the range would list the systems that would need to be covered in delivery and assessment

Relate to Core Skills and General competencies in English, Mathematics and Digital Skills

Assessment methods for the core

Construction On-Site

Technical Qualification Scheme of Assessment overview

Core Component – Learners must complete **all** assessment components

Assessment component	Method	Duration	Marks	Weighting	Marking	Grading
Exam paper 1	Externally set exam	2 hours	90	35%	Externally marked	This component will be awarded on the grade scale A* - E
Exam paper 2	Externally set exam	2 hours	90	35%	Externally marked	
Employer set project	Externally set project	17 hours	100	30%	Externally marked	

BSE

Core Component – Learners must complete **all** assessment components

Assessment component	Method	Duration	Marks	Weighting	Marking	Grading
Exam paper 1	Externally set exam	2.5 hours	110	35%	Externally marked	This component will be awarded on the grade scale A* - E
Exam paper 2	Externally set exam	2.5 hours	110	35%	Externally marked	
Employer-set project	Externally set project	17 hours	100	30%	Externally marked	

Assessment methods for the specialism

Construction On-Site

Occupational Specialism Component - Learners must complete **one** assessment component						
Assessment component (number)	**Method**	**Duration**	**Marks**	**Weighting**	**Marking**	**Grading**
Bricklaying (305)	Externally set assignment	24 hours	90	100%	Externally moderated	All occupational specialism components will be awarded on the grade scale P, M, D
Carpentry and Joinery (306)	Externally set assignment	27 hours	90	100%	Externally moderated	
Painting and Decorating (307)	Externally set assignment	27 hours	90	100%	Externally moderated	
Plastering (308)	Externally set assignment	26 hours	90	100%	Externally moderated	

Assessment methods for the specialism

BSE standalone specialism

Occupational Specialism Component - Learners must complete one assessment component from the below						
Assessment component (number)	**Method**	**Duration**	**Marks**	**Weighting**	**Marking**	**Grading**
Electrotechnical engineering (353)	Externally set assignment	24 hours	90	100%	Externally moderated	All occupational specialism components will be awarded on the grade scale P, M, D
Electrical and electronic equipment (352)	Externally set assignment	16 hours	90	100%	Externally moderated	
Protection systems engineering (357)	Externally set assignment	15 hours	90	100%	Externally moderated	
Gas engineering (354)	Externally set assignment	24 hours	90	100%	Externally moderated	

Assessment methods for the specialism

BSE paired specialism (2 x synoptic assignments)

Occupational Specialism Component* – Learners must complete both assessment components from one of the combinations below						
Assessment component	**Method**	**Duration**	**Marks**	**Weighting**	**Marking**	**Grading**
Plumbing and Heating engineering						
Plumbing engineering (356)	Externally set assignment	21 hours	90	100%	Externally moderated	All occupational specialism components will be awarded on the grade scale P, M, D
Heating engineering (355)	Externally set assignment	20 hours	90	100%	Externally moderated	
Heating engineering and Ventilation						
Ventilation (359)	Externally set assignment	20 hours	90	100%	Externally moderated	All occupational specialism components will be awarded on the grade scale P, M, D
Heating engineering (355)	Externally set assignment	20 hours	90	100%	Externally moderated	

Paid for resources: supporting delivery with Hodder Education

Hodder Education Resources

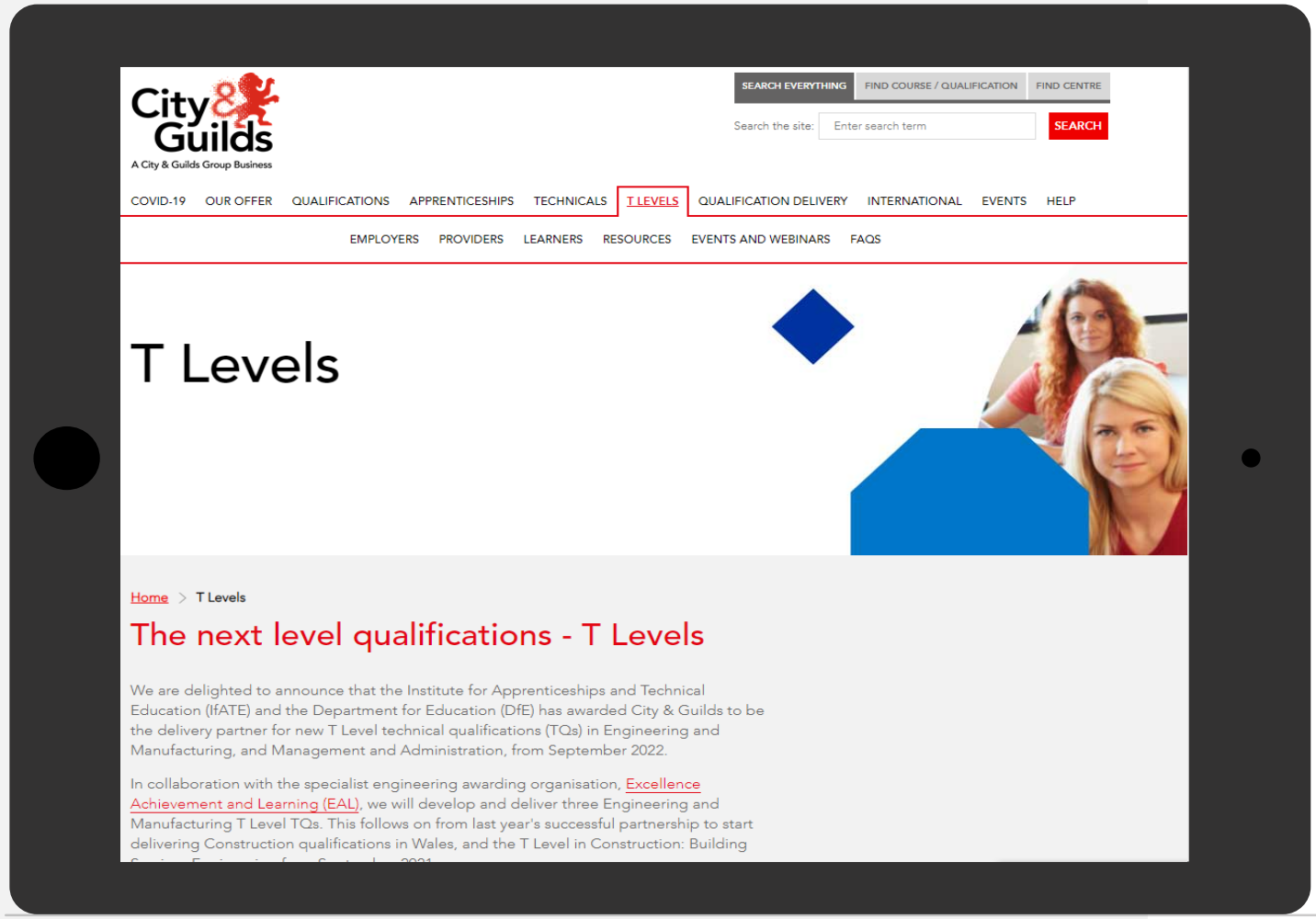
Publishing details for the two books are as follows:

Building Services Engineering for Construction T Level: Core (9781398332874, Spring 2022, 416 pp, £34)

On-site Construction T Level: Core (9781398332904, Spring 2022, 320 pp, £34)

Mapping grids: Current Hodder trade textbooks to Occupational Specialisms. Accessed here.

Hodder T Level webpage



Support and Guidance

Ready to Support eligible providers and stakeholder engagement

- Delivery Resources
- Updated webpage for T Levels
- Timeline
- Planning and delivery resources
- Provider focus groups
- Employer Industry Boards
- e-bulletins
- Draft specification
- Dedicated Technical Advisors

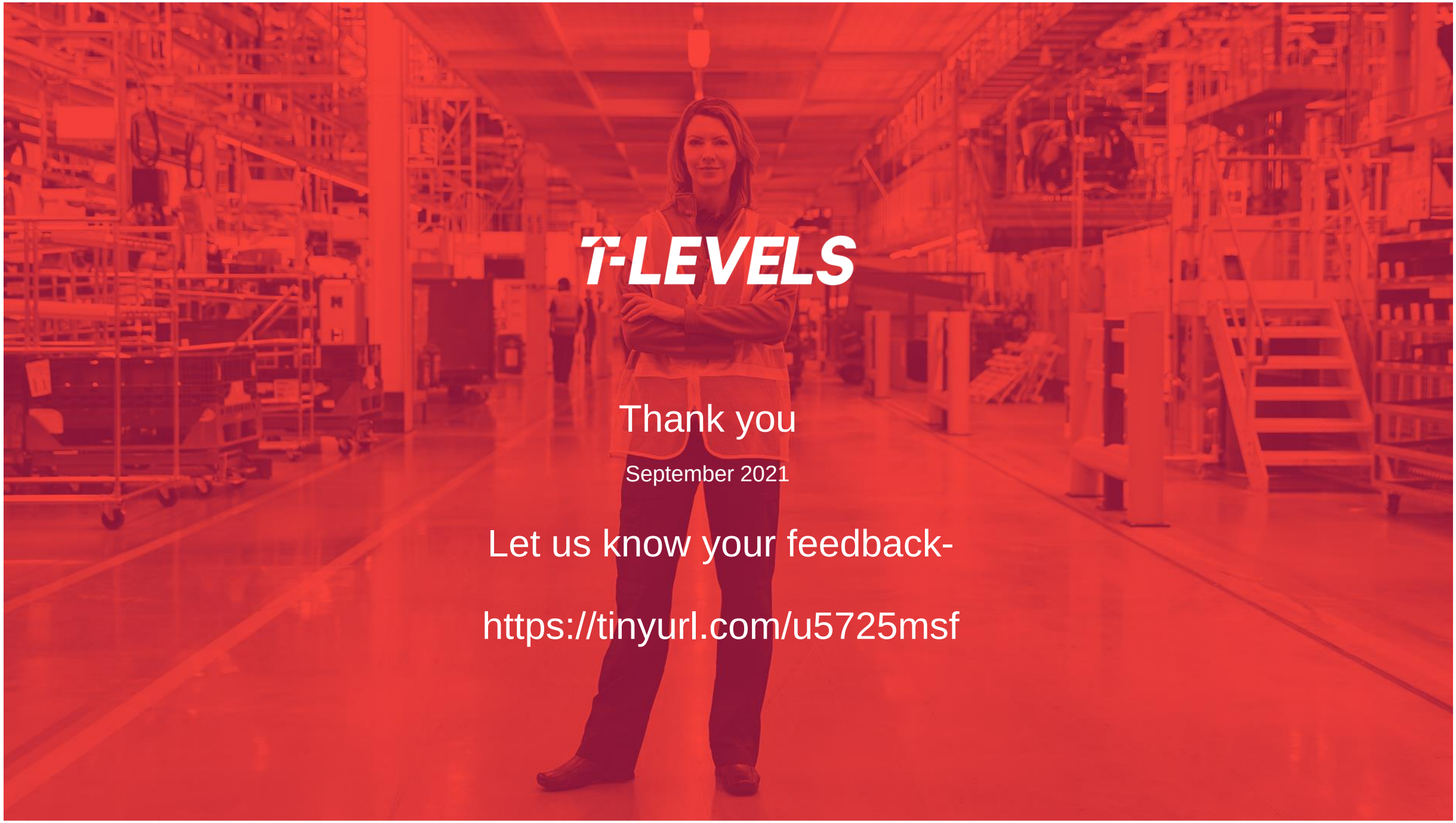
https://www.cityandguilds.com/tlevels/providers

Thank you

Q&A

Survey link

https://forms.office.com/r/qkzfv6pML0



Thank you

September 2021

Let us know your feedback-

https://tinyurl.com/u5725msf

About City & Guilds

Founded in 1878 to develop the knowledge, skills, and behaviours needed to help businesses thrive, we offer a broad and imaginative range of products and services that help people achieve their potential through work-based learning. We believe in a world where people and organisations have the confidence and capabilities to prosper, today and in the future. So we work with likeminded partners to develop the skills that industries demand across the world.

About EAL

EAL is the specialist awarding organisation for engineering and manufacturing qualifications and apprenticeships. We invest in the industries we serve and the careers of those within them. Our unrivalled understanding of employer skills needs stems from decades of experience forging industry partnerships. That's why employers trust our skills solutions to deliver real career benefits for learners.