

## **Engineering and Manufacturing T Levels Team**



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## **Agenda**

- Welcome
- Engineering & Manufacturing T Level Technical Qualifications
- Guided Learning Hours
- Website navigations update
- Technical qualification core
- Key date schedule 2023
- Delivery Models example timetables 36 week, core & OS and Semester
- Curriculum plans reflecting example timetables
- Assessment methods
  - Examples of a possible delivery planner
  - Discussion on possible mapping from core and occupational specialism
  - Teaching weeks and exam dates



- How we support you
  - Support & Guidance
  - Events & Webinars?
  - Websites to support providers
  - Opportunities to work for City & Guilds
  - Engineering Text book from Hodder Education
- Opportunity for Questions

- Individual centre timetabling
- Every occupational specialism
- Delivery and curriculum planning outside
- of the Technical Qualification e.g additional English and Maths
- **Entry requirements**
- Progression routes

\*\* If you missed our previous T Level Familiarisation webinars, you can find the recordings and slide deck on our T Level events page here.

### **T Level Technical Qualifications**

Maintenance, Installation and
Repair for Engineering and
Manufacturing

manarastaring	
8730 - 12	Core
8712 – 31	Mechanical
8712 – 32	Mechatronics
8712 – 33	Electrical & Electronics
8712 – 34	Control & Instrumentation
8712 – 35	Light & Electric Vehicles

<b>Engineering, Manufacturing, Processing and</b>
Control

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

Registration information-Core first before OS

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

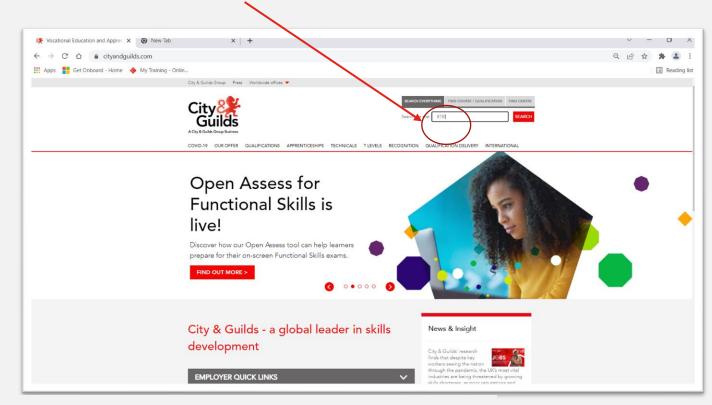


## **Guided Learning Hours**

		Engine	ering and Manufacturing	J				
Desig	n and Development	Maintenan	ce, Installation and Repair	Manufacturing, Processing and Control				
Core Content (GLH)	Occupational Specialism (GLH)	Core Content (GLH)	Occupational Specialism (GLH)	Core Content (GLH)	Occupational Specialism (GLH)			
680	680	680	680	680	680			
	1360		1360	1360				

## **Website Navigation – Core Components**

From the homepage you can search for the qualification 8730

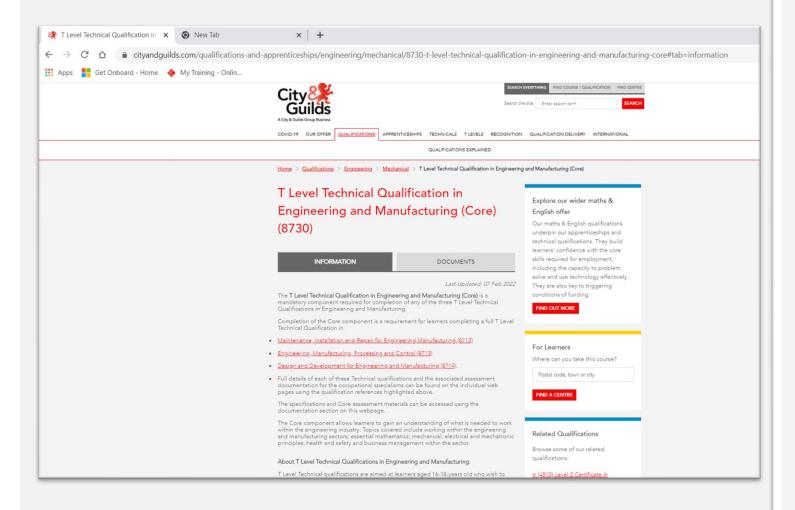


Then select the qualification

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

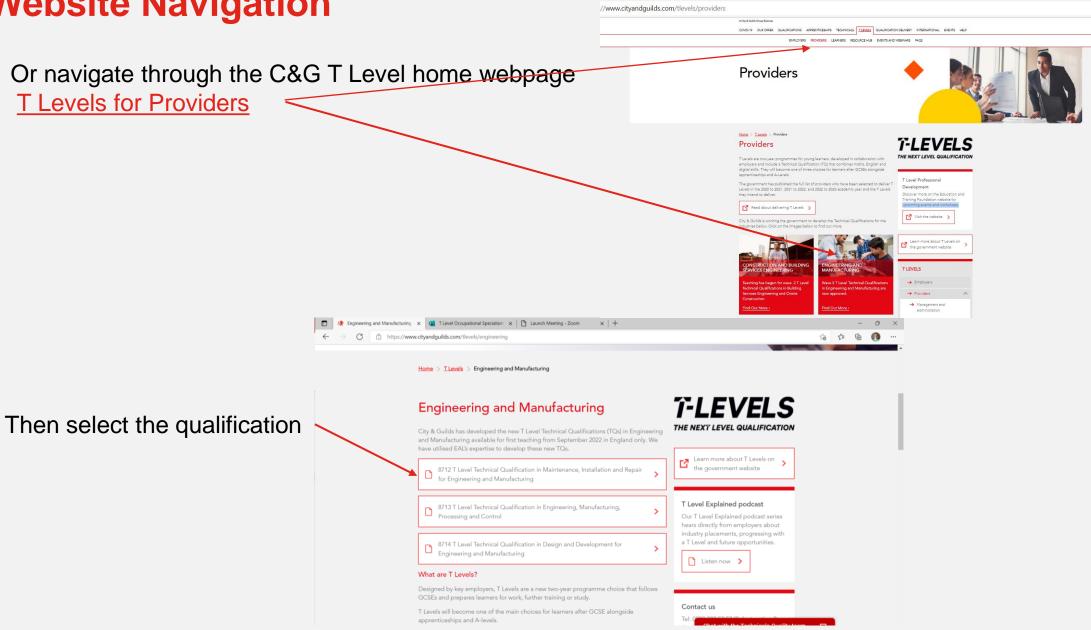
## **Website Navigation – Core Components**



### 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  $\wedge$ Core Exams **Employer Set Project** Centre Documents  $\wedge$ Design and Development for Engineering and Manufacturing 8714 **Engineering Manufacturing Processing and Control 8713**  $\sim$ Maintenance Installation and Repair for Engineering Manufacturing 8712

## **Website Navigation**



evels | X | T Level Occupational Specialism | X | Launch Meeting - Zoom

## **Specifications**

### https://www.cityandguilds.com/tlevels/engineering





T Level Technical Qualification in **Design and Development for Engineering and Manufacturing** Specification First teaching from September 2022 Version 1.0

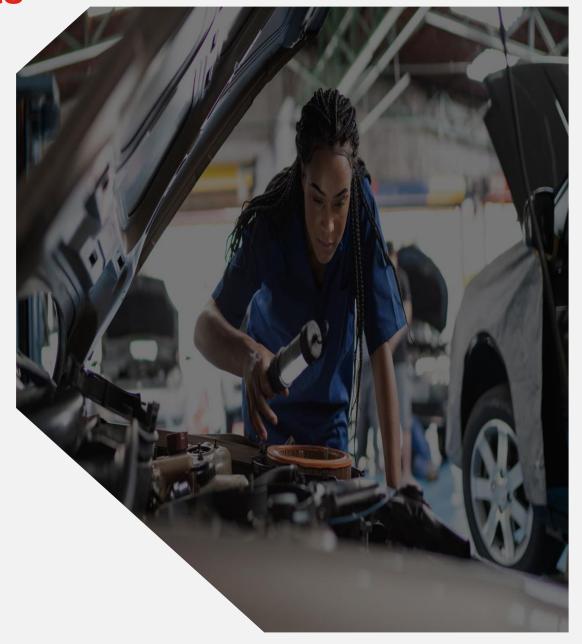
T Level Technical Qualification in Maintenance, Installation and Repair for Engineering and Manufacturing qualifications and training courses | City & Guilds (cityandguilds.com)

T Level Technical Qualification in Engineering,
Manufacturing, Processing and Control qualifications
and training courses | City & Guilds (cityandguilds.com)

T Level Technical Qualification in Design and Development for Engineering and Manufacturing qualifications and training courses | City & Guilds (cityandguilds.com)

**Technical Qualification – Core Units** 

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

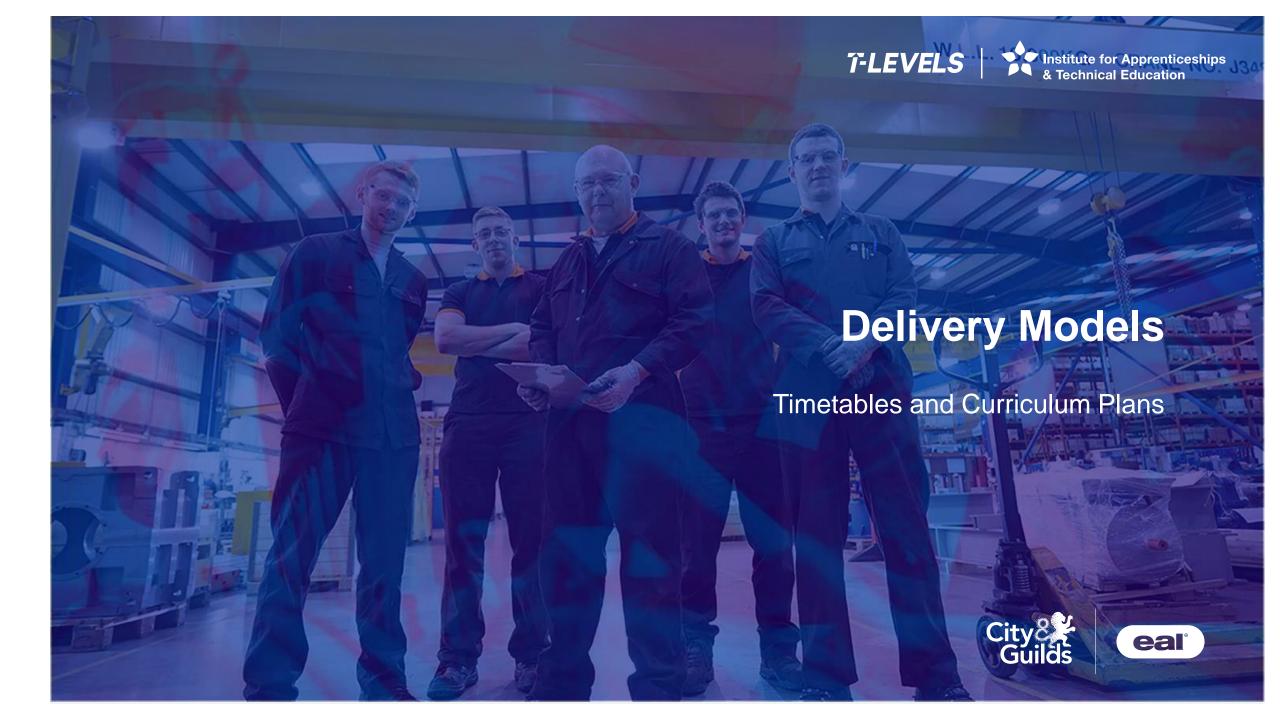


## **Key Date Schedule- 2023**

Component	Series	Exam type	Calendar Month/s	Assessment window/set date
Core exam 1	First series	Written exam	May/June 2023	Set date
	*Retake series	Written exam	November 2023	Set date
Core exam 2	First series	Written exam	May/June 2023	Set date
	*Retake series	Written exam	November 2023	Set date
Employer- set project	First series	Project	March – May 2023	Set dates within assessment window
	*Retake series	Project	October 2023	Set dates within assessment window
Occupational specialism	One series annually	Project	February – May 2024	Assessment window

<sup>\*</sup>Please note that the retake series is not only restricted to retakes.





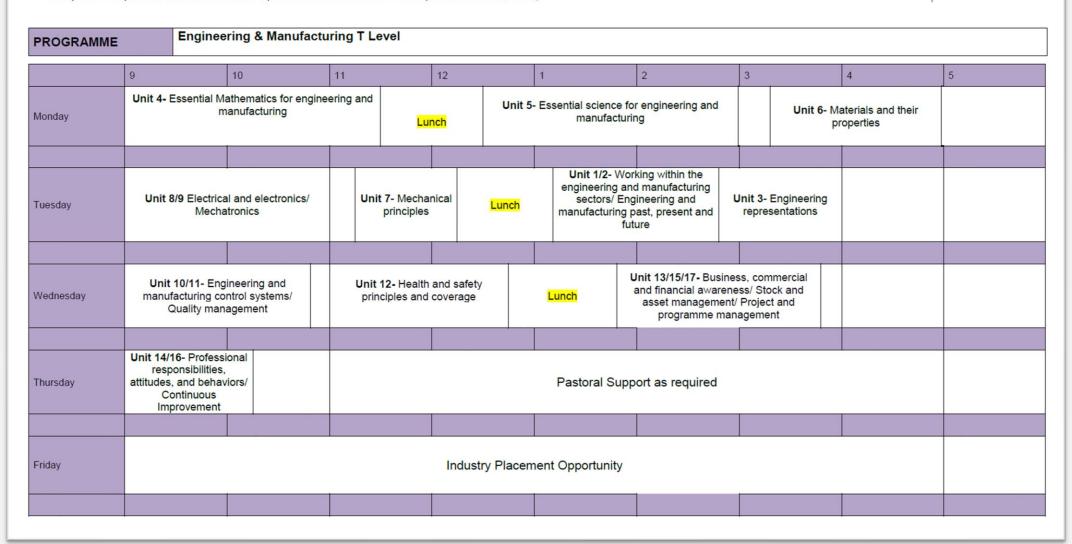
## Core example timetable

### T Level common Core Example Timetable





(Note- the below is a typical example and is not fixed in anyway. We have grouped some units together to create full lessons. Centres can use this example or adapt it based on their own requirements. Based on a delivery model of 36 weeks.)



## Core example timetable with Occupational Specialism

### T Level common Core Example Timetable with Occupational Specialism practical





(Note- the below is a typical example and is not fixed in anyway. We have grouped some units together to create full lessons. Centres can use this example or adapt it based on their own requirements. Based on a delivery model of 36 weeks.)

PROGRAMM	E Eng	gineering	y & Manufac	turing T	Level										
	9	10		11		12		1			2	3		4	5
Monday	Unit 4- Essential Mathematics for engineering at manufacturing			nch	Unit 5- Essential science for manufacturing					faterials and their properties					
Tuesday	Unit 8/9 - Electrical and electronics/ Mechatronics		Jnit 7- Mecha principles	Lunch			Unit 1/2- Working within the engineering and manufacturing sectors/ Engineering and manufacturing past, present and future		manufacturing neering and ast, present and	Unit 3- Engineering representations		Pastoral Support as required			
Vednesday	Unit 10/11- Engineering and manufacturing control systems/ Quality management Unit 12- Health and safe principles and coverage										ess/ Stock and Pastoral Suppor / Project and as required				
Thursday						Indus	try Place	men	t Opportunity						
Friday	Unit 14/16- Professional responsibilities, attitudes, and behaviors/ Continuous Improvement  Unit 14/16- Professional Cocupational Specialism practical Cocupational Specialism practical Continuous Improvement														

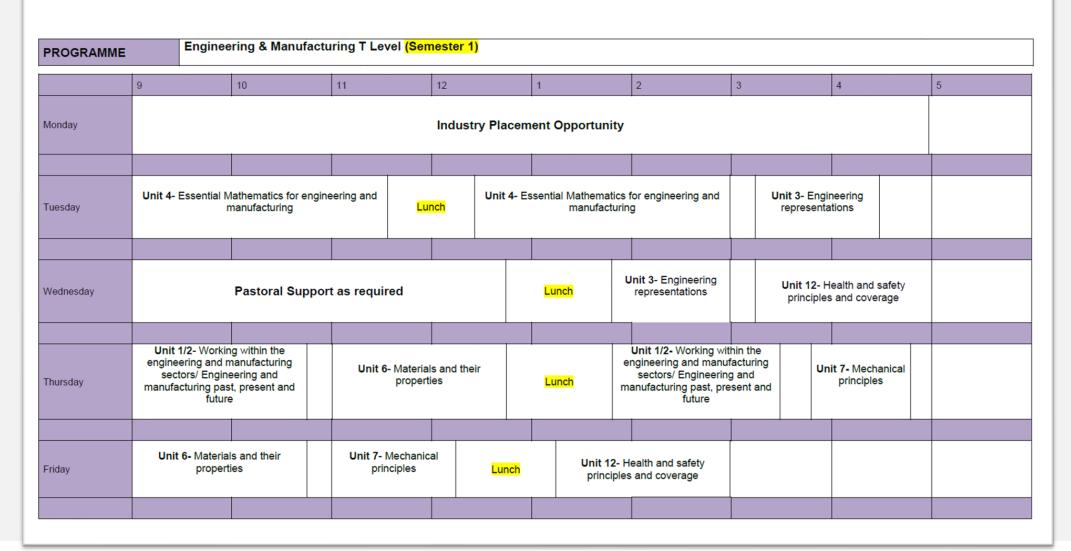
## Core example timetable split over 2 semesters

### T Level Common Core Example Timetable





(Note- the below is a typical example and is not fixed in anyway. We have grouped some units together to create full lessons. Centres can use this example or adapt it based on their own requirements. Based on a delivery model of 36 weeks, split into 2x 18-week blocks.)



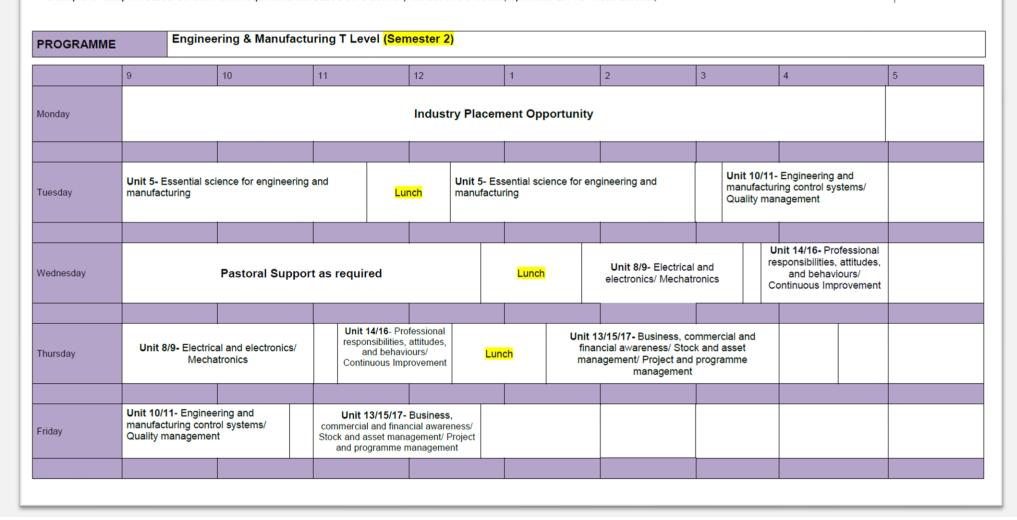
## Core example timetable split over 2 semesters

### T Level Common Core Example Timetable

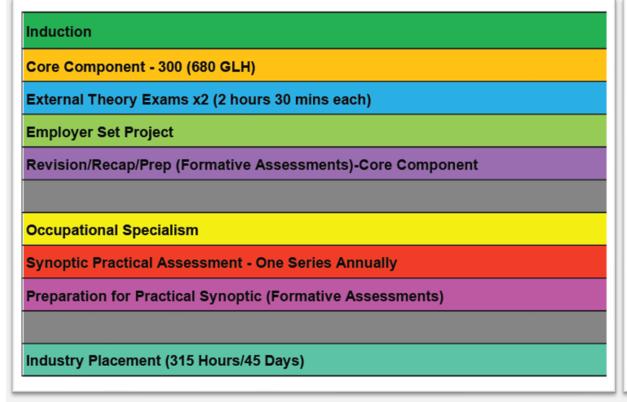


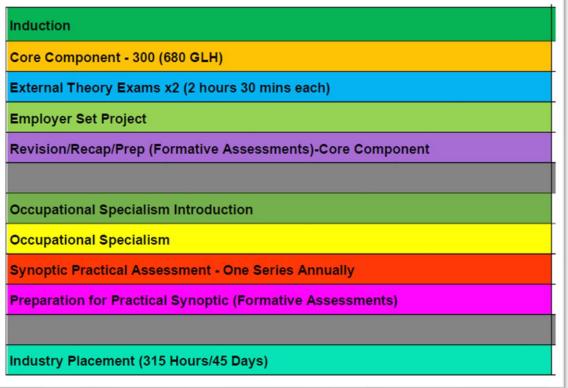


(Note- the below is a typical example and is not fixed in anyway. We have grouped some units together to create full lessons. Centres can use this example or adapt it based on their own requirements. Based on a delivery model of 36 weeks, split into 2x 18-week blocks.)



# **Key for Deliver/Curriculum Planners** (Engineering & Manufacturing)





**Curriculum Plan with Core only in Year 1** 

**Curriculum Plan with Core and OS in Year 1** 

# **Expanded Version of Year 1 Term 1 Engineering & Manufacturing with Core only.**

Adaptable delivery plan for T Level Engineering & Manufacturing Level 3 QAN 1000TQ 680GLH YEAR 1 OF 2 Curriculum Plan Week 1 Week 2 Week 3 Week 4 Week 5 Week 6 Week 7 Week 8 Week 9 Week 10 Week 11 Week 12 Week 13 Week 14 T Level Technical Qualification key dates are located here ore Component - 300 (680 GLH) xternal Theory Exams x2 (2 hours 30 mins each) Employer Set Project ision/Recap/Prep (Formative Assessments)-Core Component noptic Practical Assessment - One Series Annually reparation for Practical Synoptic (Formative Assessments) lustry Placement (315 Hours/45 Days)

# **Expanded Version of Year 1 Term 2 Engineering & Manufacturing with Core only.**

Term 2 Winter/Spring	Week 15	Week 16	Week 17	Week 18	Week 19	Week 20	Week21	Week 22	Week 23	Week 24	Week 25	Week 26
T Level Technical Qualification key dates are located here												
Core Component - 300 (680 GLH)												
External Theory Exams x2 (2 hours 30 mins each)												
Employer Set Project												
Revision/Recap/Prep (Formative Assessments)-Core Component			Preparation for ESP	Preparation for ESP	Preparation for ESP							
Occupational Specialism												
Synoptic Practical Assessment-(One Series Annually)												
Preparation for Practical Synoptic (Formative Assessments)												
Industry Placement (315 Hours/45 Days)												

# **Expanded Version of Year 1 Term 3 Engineering & Manufacturing with Core only.**

Term 3 Spring/Summer	Week 27	Week 28	Week 29	Week 30	Week 31	Week 32	Week 33	Week 34	Week 35	Week 36	Week 37	Week 38	Week 39	August
T Level Technical Qualification key dates are located here														
Core Component - 300 (680 GLH)														
external Theory Exams x2 (2 hours 30 mins each)														
Employer Set Project														
Revision/Recap/Prep (Formative Assessments)- Core Component	Revision for exam	Revision for exam	Revision for exam											
														Results Year
Occupational Specialism														
Synoptic Practical Assessment- One Series Annually														
Preparation for Practical Synoptic (Formative Assessments)														
Industry Placement (315 Hours/45 Days)														

# **Expanded Version of Year 1 Term 1 Engineering & Manufacturing with Core and Occupational Specialism.**

Adaptable delivery plan for T Level Engineering & Manufacturing Level 3 QAN 1000TQ 680GLH YEAR 1 OF 2 Curriculum Plan Week 1 Week 2 Week 3 Week 4 Week 5 Week 6 Week 7 Week 8 Week 9 Week 10 Week 11 Week 13 Week 14 Week 12 Autumn/Winter T Level Technical Qualification key dates are located here Core Component - 300 (680 GLH) xternal Theory Exams x2 (2 hours 30 mins each) vision/Recap/Prep (Formative Assessments)-Core Component ynoptic Practical Assessment - One Series Annually eparation for Practical Synoptic (Formative Assessments) dustry Placement (315 Hours/45 Days)

# **Expanded Version of Year 1 Term 2 Engineering & Manufacturing with Core and Occupational Specialism.**

Term 2 Winter/Spring	Week 15	Week 16	Week 17	Week 18	Week 19	Week 20	Week21	Week 22	Week 23	Week 24	Week 25	Week 2
T Level Technical Qualification key dates are located here												
Core Component - 300 (680 GLH)												
External Theory Exams x2 (2 hours 30 mins each)												
Employer Set Project												
Revision/Recap/Prep (Formative Assessments)-Core Component			Preparation for ESP	Preparation for ESP	Preparation for ESP							
Occupational Specialism												
Synoptic Practical Assessment-(One Series Annually)												
Preparation for Practical Synoptic (Formative Assessments)												
Industry Placement (315 Hours/45 Days)												

## **Expanded Version of Year 1 Term 3 Engineering & Manufacturing with Core and Occupational Specialism.**

Term 3 Spring/Summer	Week 27	Week 28	Week 29	Week 30	Week 31	Week 32	Week 33	Week 34	Week 35	Week 36	Week 37	Week 38	Week 39	August
T Level Technical Qualification key dates are located here														
ore Component - 300 (680 GLH)														
xternal Theory Exams x2 (2 hours 30 mins each)														
Employer Set Project														
Revision/Recap/Prep (Formative Assessments)- Core Component	Revision for exam	Revision for exam	Revision for exam											
														Results Year 1
Occupational Specialism														
synoptic Practical Assessment- One Series Annually														
Preparation for Practical Synoptic (Formative Assessments)														
ndustry Placement (315 Hours/45 Days)														

## Expanded Version of Year 2 Term 1 Engineering & Manufacturing with Occupational Specialism.

Adaptable delivery plan for T Level Engineering & Manufacturing Level 3 QAN 1000 TQ 680 GLH YEAR 2 OF 2 eal Curriculum Plan Week 1 Week 2 Week 3 Week 4 Week 5 Week 6 Week 7 Week 8 Week 9 Week 10 Week 11 Week 12 Week 13 Week 14 T Level Technical Qualification key dates are located here External Theory Exams x2 (2 hours 30 mins each) Retake Retake Retake Retake Retake vision/Recap/Prep- Core Component Revision for ESP Revision for exams Revision for exams Revision for exams Occupational Specialism (680 GLH) ynoptic Practical Assessment- One Series Annually reparation for Practical Synoptic Industry Placement (315 Hours/45 Days)

# **Expanded Version of Year 2 Term 2 Engineering & Manufacturing with Occupational Specialism.**

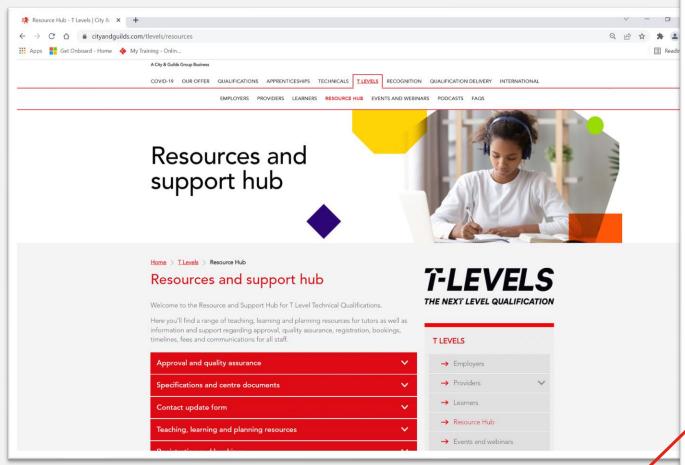
Term 2 Winter/Spring	Week 15	Week 16	Week 17	Week 18	Week 19	Week 20	Week21	Week 22	Week 23	Week 24	Week 25	Week 26
T Level Technical Qualification key dates are located here												
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Employer Set Project												
Revision/Recap/Prep- Core Component												
Occupational Specialism (680 GLH)												
Synoptic Practical Assessment-One Series Annually												
Preparation for Practical Synoptic												
ndustry Placement (315 Hours/45 Days)												

## **Expanded Version of Year 2 Term 3 Engineering & Manufacturing with Occupational Specialism.**

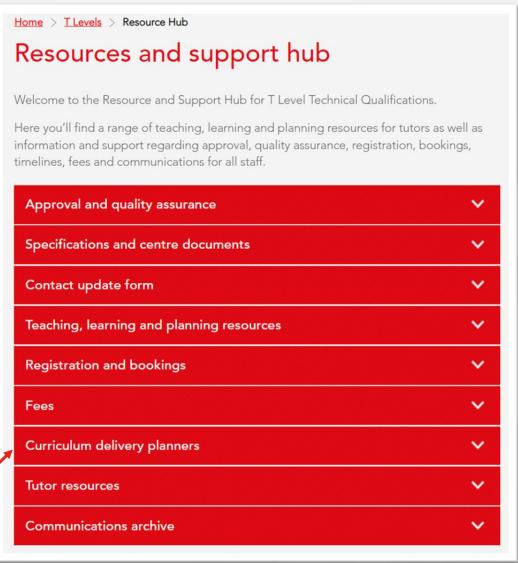
Term 3 Spring/Summer	Week 27	Week 28	Week 29	Week 30	Week 31	Week 32	Week 33	Week 34	Week 35	Week 36	Week 37	Week 38	Week 39	August
T Level Technical Qualification key dates are located here														
Core Component - 300 (680 GLH)														
External Theory Exams x2 (2 hours 30 mins each)														
Employer Set Project														
Revision/Recap/Prep- Core Component														
														Result
Occupational Specialism (680 GLH)														
Synoptic Practical Assessment- One Series Annually														
Preparation for Practical Synoptic														
Industry Placement (315 Hours/45 Days)														

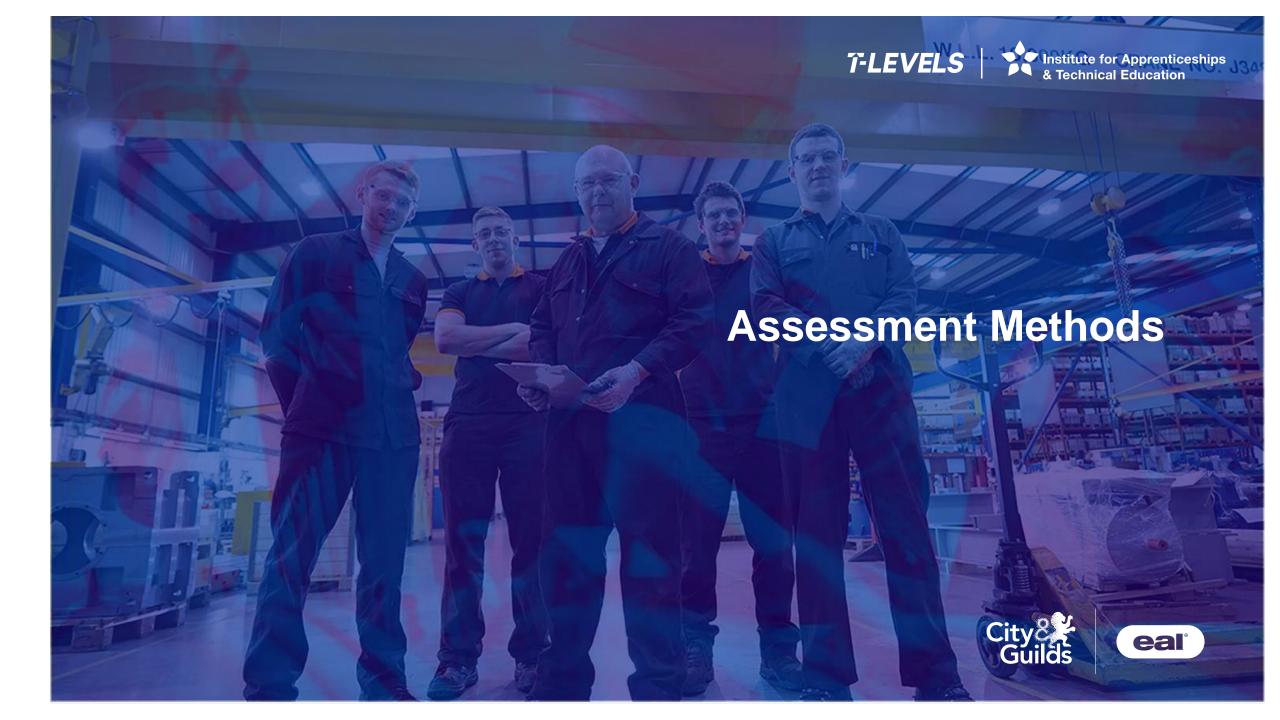
Where are the delivery planners located

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



Click the link on Curriculum delivery planners





## Technical Qualification scheme of assessment components – Design & Development Pathway

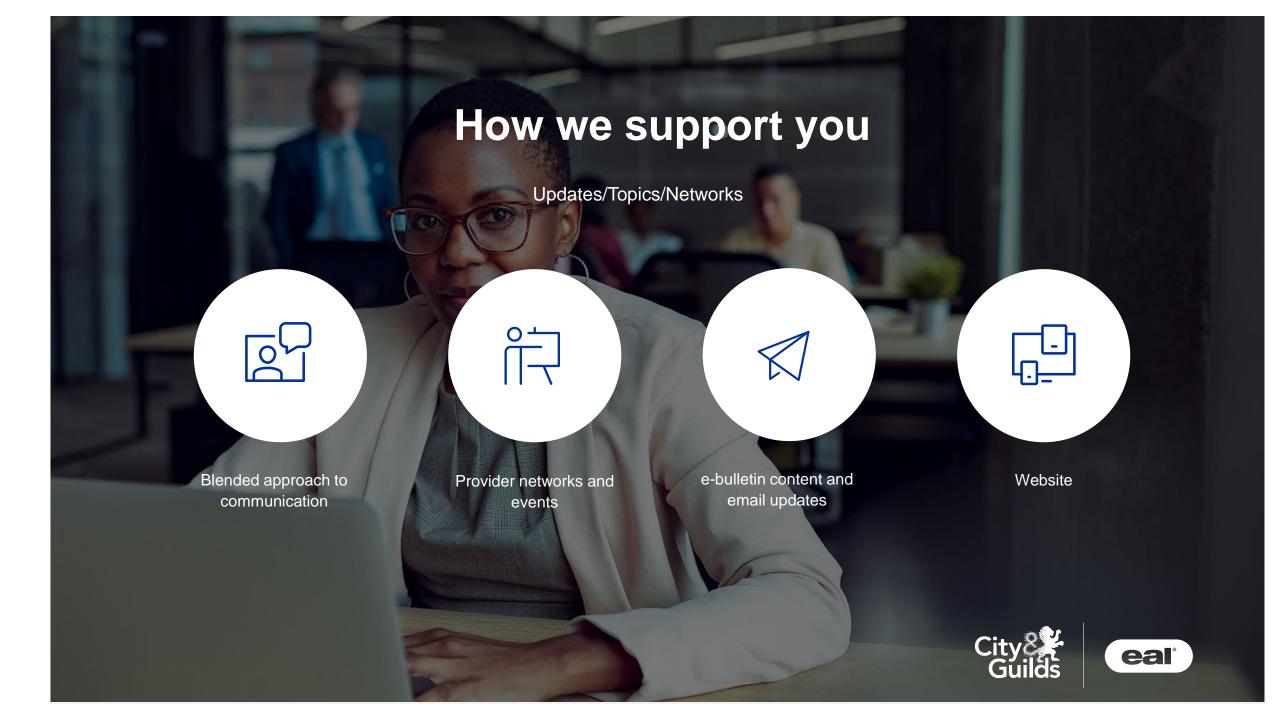
Core component – Learners must complete all assessment components										
Assessment component	Method	Duration	Marks	Weighting	Marking	Grading				
Exam paper 1	Externally set exam	2.5 hours	100	35%	Externally marked					
Exam paper 2	Externally set exam	2.5 hours	100	35%	Externally marked	This component will awarded on the grad scale A* -E				
Employer-set project	Externally set project	18.5 hours	90	30%	Externally marked					
Occupational Specialism Component – Learners must complete all assessment components										
Assessment component	Method	Duration	Marks	Weighting	Marking	Grading				
Mechanical engineering	Externally set assignment	34 hours	90	100%	Externally moderated					
Electrical and electronic engineering	Externally set assignment	34 hours	90	100%	Externally moderated	All occupational specialism component				
Control and instrumentation	Externally set assignment	34 hours	90	100%	Externally moderated	will be awarded on the grade scale P,M,D				
Structural engineering	Externally set assignment	34 hours	90	100%	Externally moderated					

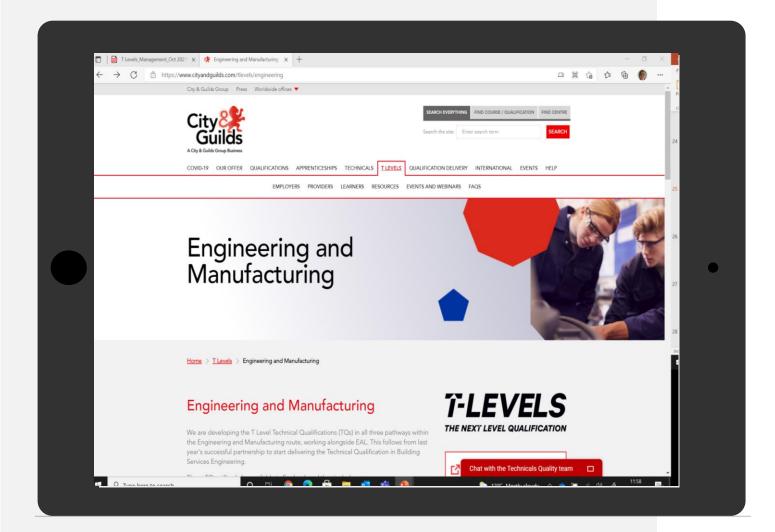
## **Technical Qualification scheme of assessment components – Maintenance, Installation and Repair Pathway**

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	100	35%	Externally marked						
Exam paper 2	Externally set exam	2.5 hours	100	35%	Externally marked	This component will be awarded on the grade scale A* -E					
Employer-set project	Externally set project	12.5 hours	90	30%	Externally marked						
Occupational Specialism Component – Learners must complete all assessment components											
Assessment component	Method	Duration	Marks	Weighting	Marking	Grading					
Maintenance engineering technologies: Mechanical	Externally set assignment	22 hours	90	100%	Externally moderated						
Maintenance engineering technologies: Mechatronic	Externally set assignment	22 hours	90	100%	Externally moderated						
Maintenance engineering technologies: Electrical and Electronic	Externally set assignment	22 hours	90	100%	Externally moderated	All occupational specialism component will be awarded on the grade scale P,M,D					
Maintenance engineering technologies: Control and Instrumentation	Externally set assignment	22 hours	90	100%	Externally moderated						
Light and Electric Vehicles	Externally set assignment	22 hours	90	100%	Externally moderated						

## Technical Qualification scheme of assessment components – Engineering, Manufacturing, Processing & Control Pathway

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	100	35%	Externally marked					
Exam paper 2	Externally set exam	2.5 hours	100	35%	Externally marked	This component will be awarded on the grade scale A* -E				
Employer-set project	Externally set project	15 hours	90	30%	Externally marked					
Occupational Specialism C	component – Learners must co	omplete all assessment comp	oonents							
Assessment component	Method	Duration	Marks	Weighting	Marking	Grading				
Fitting and assembly technologies	Externally set assignment	25 hours 15 minutes	90	100%	Externally moderated					
Machining and toolmaking technologies	Externally set assignment	25 hours 15 minutes	90	100%	Externally moderated	All occupational specialism components				
Composites manufacturing technologies	Externally set assignment	24 hours 15 minutes	90	100%	Externally moderated	will be awarded on the grade scale P,M,D				
Fabrication and welding technologies	Externally set assignment	26 hours 15 minutes	90	100%	Externally moderated					





## Support and Guidance

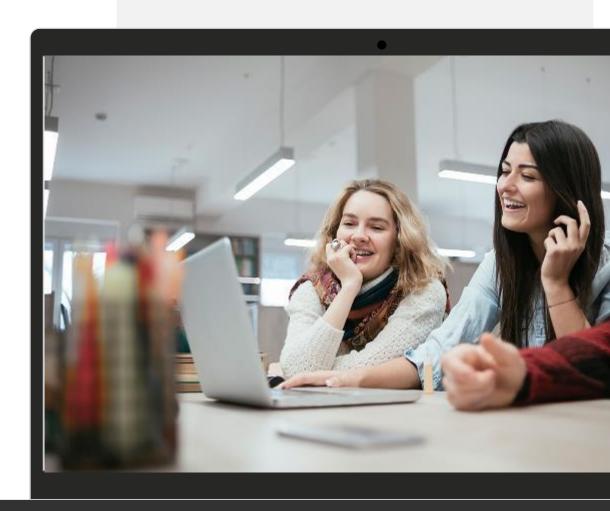
Ready to support eligible providers and stakeholder engagement

- Timeline <u>t-levels-wave-3-engineering-and-manufacturing-12-month-countdown</u>
- Provider focus groups
- Employer Industry Boards
- e-bulletins
- Specification
- Learner flyer <u>t-levels-learner-flyer-</u> engineering-and-manufacturing
- Dedicated Technical Advisors

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

## **Coming Soon / Events & Webinars**

- Resource development
- Teaching & Learning support for exam component
- Face-to-face events
- 25th March "Ask a T Level Expert" drop in session for Engineering & Manufacturing 9am – 5pm
- Registration via Eventbrite
   <a href="https://www.eventbrite.co.uk/e/265229627957">https://www.eventbrite.co.uk/e/265229627957</a>
- Previous events, networks and webinars are located on our T Level
  Home page <a href="here">here</a> 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 <u>here</u>.
- For the most up to date information regarding future events please register for our T Level e-bulleting at the bottom of this webpage, <a href="here">here</a>.



## **Websites to Support Providers**

T Level Industry Placement Delivery Guidance (updated 04/11/21)

T Level industry placements delivery guidance - GOV.UK (www.gov.uk)

Introduction to T levels (updated 21/11/21)

T levels - GOV.UK (www.gov.uk)

How T Levels are funded (updated 03/11/21)

How T Levels are funded - GOV.UK (www.gov.uk)

T Levels capital fund (updated 17/12/21)

T Levels capital fund - GOV.UK (www.gov.uk)

T Levels resources for teachers and careers advisers (updated 16/12/21)

T Levels resources for teachers and careers advisers - GOV.UK (www.gov.uk)

T Levels: next steps for providers (updated 17/12/21)

T Levels: next steps for providers - GOV.UK (www.gov.uk)

**Supporting with delivering T Levels** 

Support with delivering T Levels

T Level Transition Programme Framework for 2022 – 2023 (updated 17/12/2021)

T Level Transition Programme Framework for Delivery 2022 to 2023 - GOV.UK (www.gov.uk)

**ETF Foundation – T Levels** 

T Level Professional Development - Education & Training Foundation (et-foundation.co.uk)

### **T Level Associate Vacancies**

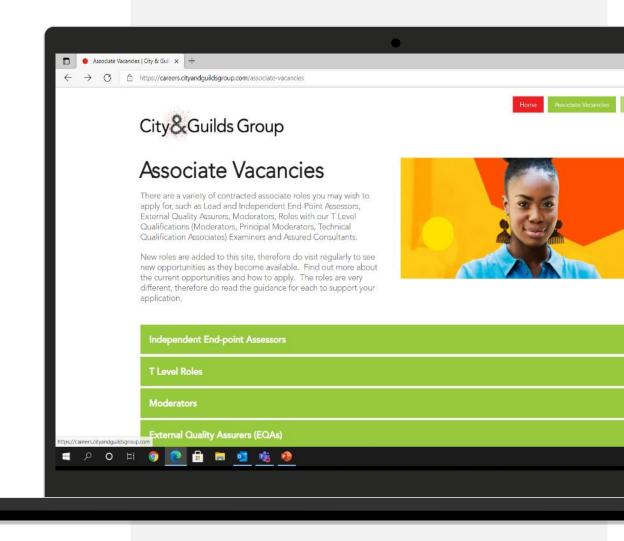
There are a variety of contracted associate roles you may wish to apply as part of the T Level Qualifications such as-

- Moderators/ Principal Moderators
- Technical Qualification Associates (TQA's)
- Examiners and Assured Consultants

For further information, please contact

Samantha.ashman@cityandguilds.con or visit our website on the attached link- Associate Vacancies | City & Guilds Group

Careers

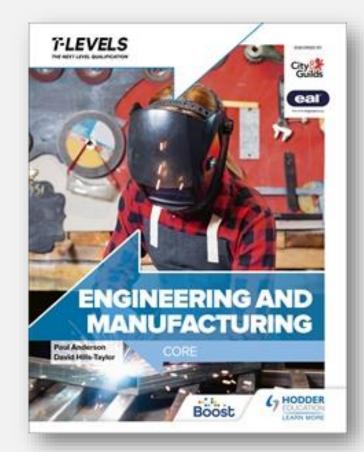


## **Engineering and Manufacturing T Level: Core Textbook**

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 Autumn 2022
- 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: <a href="mailto:gemma.Simpson@hoddereducation.co.uk">gemma.Simpson@hoddereducation.co.uk</a>





### Learning outcomes

Core knowledge outcomes that you must understand and learn.

#### Key terms

Important terms that you should understand.

#### Industry tips

Useful tips and advice to help you in the workplace.

#### Research

Research-based activities – either stretch and challenge activities, enabling you to go beyond the course, or industry placement-based activities encouraging you to discover more about your placement.

#### Case study

Placing knowledge into a fictionalised, real-life context. Useful to introduce problem solving and dilemmas.

#### Test yourself

A knowledge consolidation feature containing questions and tasks to aid understanding and guide you to think about a topic in detail.

#### Health and safety

Important points to ensure safety in the workplace.

#### Improve your maths

Short activities that encourage you to apply and develop your functional maths skills, in context.

#### Improve your English

Short activities that encourage you to apply and develop your functional English skills, in context.

#### Assessment practice

Knowledge-based practice questions to help prepare you for the exam.

#### Project practice

Short scenarios and focused activities, reflecting one or more of the tasks that you will need to undertake during completion of the employer-set project.

A range of learning and assessment features and activities to engage your learners and prepare them for the core exam and ESP







