T Level Foundation Programmes



T Level Foundation Course in Construction and the Built Environment

Version V1

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Summary of changes

The following table provides a summary of the changes that have been made to the course specification since the publication of the previous version.

Version number	Summary of changes

Welcome to VQA

Our commitment to you

At VQA (VQA), we believe learning should be meaningful, flexible, and of an exceptional quality, whether it's a regulated qualification or part of our non-regulated course provision.

VQA is a recognised Awarding Organisation regulated by Ofqual in England and CCEA Regulation in Northern Ireland. We apply the same high-quality standards to our non-regulated courses, ensuring they are well-designed, purposeful, and aligned with the skills, behaviours, and knowledge to support students on their learning journey.

This endorsed, unregulated **T Level Foundation Course in Construction and the Built Environment** is part of that commitment. It provides a supportive, structured route for students who would benefit from a preparatory year before progressing to a full T Level qualification.

What you need before you can deliver a T Level Foundation Course

To deliver a T Level Foundation course, your organisation must be recognised by VQA.

Our **endorsed course requirements** check that your policies, systems, and staffing are in place to deliver high-quality learning. Centres must show they have:

- appropriate resources
- qualified and occupationally competent staff
- clear systems in place to deliver and assess the course.

Approval must be confirmed by VQA before any teaching takes place.

Full guidance on centre recognition and approval is available in the VQA Endorsed Course Customer Requirements accessible from the VQA website.

About this specification

This course specification sets out everything centres need to plan, deliver, and assess the T Level Foundation Course in Construction and the Built Environment. Inside you will find:

- a clear statement of the course purpose
- the three National Technical Outcomes (NTOs) with the underpinning knowledge and skills
- practical guidance for delivery.

Reproduction of this document:

Centres may reproduce this specification for internal use only. The content must not be altered, edited, or adapted in any way.

Using the VQA name and logo

We're proud of the VQA brand, and we know our centres are too. That's why we allow recognised centres to use the VQA logo and name to promote approved courses, with a few simple rules:

- logos must not be altered in colour, shape, size, or design
- use only on approved materials: e.g., course brochures, web pages, or promotional flyers relating to VQA courses
- centres must monitor how the logo is used — both by themselves and any third parties they work with.

If your centre is no longer recognised, or if your marketing relationships change, you must inform VQA and remove any use of the logo or name.

More details about logo use and brand guidelines can be found in our full brand policy on the VQA website.

Advertising rules

As an Awarding Organisation, VQA and its registered centres are subject to the Conditions of Recognition defined by the regulator, Ofqual. Two of these conditions (B5.1 and B5.2) stipulate that VQA and its centres must take steps to ensure that non-regulated products are not advertised or promoted to students as regulated qualifications.

To guarantee these conditions are met, we have provided the following requirements that all centres must follow when marketing this course:

- marketing materials should not mislead a student into believing they will gain a regulated qualification
- all marketing materials must not describe this course as "regulated" or "nationally recognised"
- all marketing materials must not describe this course as equivalent to a regulated qualification
- all marketing must not state that this course meets industry standards for employment.

Accessibility

As an Awarding Organisation, VQA is committed to ensuring that all our products are accessible, inclusive, and non-discriminatory. We ensure that no aspect of this course disadvantages any group of students who share a protected characteristic or introduces unjustifiable barriers to entry, other than those essential to the course's intended purpose. Where such features are necessary, they will be clearly stated and justified.

VQA monitors and reviews the nine protected characteristics (age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation) throughout qualification development to maintain accessibility and inclusivity. This approach promotes positive attitudes and fosters good relations among all students.

More information can be found in our Equality and Diversity Policy.

T Level Foundation Year

Overview

A T Level Foundation Year is a preparatory study programme designed to support students who have the potential to progress to a T Level.

The programme comprises 5 key components:

- industry-relevant technical knowledge and skills
- skills for successful study
- English, maths, and digital skills
- knowledge and skills for the workplace
- positive attitudes and behaviours.

The primary purpose of this T Level Foundation Course in Construction and the Built Environment is to provide the foundational technical knowledge and skills relevant to the student's preferred T Level route. The course is designed for students who would benefit from additional preparation and study time before starting a T Level. It supports progression to their chosen subject route by developing the knowledge, skills, and behaviours needed for level 3 study.

A Foundation Year should support students in making informed decisions about their next steps. This may include progressing to a T Level or pursuing an alternative pathway, with guidance provided to ensure each student chooses the route that is right for them.

It is designed to meet the requirements outlined by the Department for Education (DfE) in its T Level Foundation Year: framework for delivery guidance.

The VQA T Level Foundation Course in Construction and the Built Environment is a non-regulated, accredited course.

How will a T Level Foundation Course benefit your students?

This T Level Foundation Course provides a tailored year of learning to help students prepare for the demands of level 3 study. It focuses on developing the core knowledge, skills, and behaviours needed to succeed on a T Level, providing a clear and supportive transition into level 3 study. It helps students build confidence and independence while gaining a clear understanding of what is expected within their chosen T Level route.

Students will have opportunities to engage with employers and make meaningful links between their learning and the world of work. The course also supports personal development by encouraging students to take ownership of their progress, with time built in to meet individual learning needs and provide appropriate pastoral support.

By the end of the course, students should have a clear understanding of what is required to succeed on their chosen T Level, or feel confident in making an informed decision about an alternative progression route or career path.

By the end of the course, students should have a clear understanding of what is required to succeed on their chosen T Level or feel confident in making an informed decision about an alternative progression route or career path.

The course is intended for students identified through diagnostic assessment as not yet ready to meet the demands of a T Level. It provides targeted preparation and structured study to support progression to level 3 study.

Diagnostic assessment

Centres must ensure that all students complete an initial diagnostic assessment before the start of a foundation year. This may take different forms depending on centre practice but should be used to identify each student's learning, development, and pastoral support needs.

The findings should inform how a foundation year is tailored, including any support for students with SEND. It will also assist in determining whether a T Level Foundation Course or direct entry to a T Level is the most appropriate route for each student. Diagnostic activities may include taster sessions, one-to-one discussions, self-assessments, assignments or reflective tasks, and may be supported by knowledge, skills and behaviour matrices.

This stage should help students make informed decisions about their next steps. Students who have identified a preferred T Level route should be supported to confirm that it is the most suitable option for them, while those who are undecided should be given opportunities to explore alternative options.

The Foundation Year

A T Level Foundation Year is designed to support students in building a strong basis for further study. It is structured around 5 areas that provide students with the essential academic, practical, and personal skills needed to successfully progress to a T Level qualification. The 5 areas that make up a foundation year are listed below:

Technical knowledge	Skills for successful study	English, maths, and digital skills development	Knowledge and skills for the workplace	Positive attitude and behaviours
Students are introduced to key concepts and practical skills relevant to their intended T Level. This builds early technical understandin g and prepares them for level 3 learning.	This area focuses on essential study skills development to include time management and independent learning. Students will also develop techniques in formal writing, research, referencing, and critical thinking.	Students who have not yet attained a GCSE grade 4 in English and/or maths (or equivalent qualification) are required to continue working towards this achievement through GCSE resits, or by completing a Functional Skills qualification.	This component introduces students to professional workplace behaviours and the expectations of a T Level industry placement. It covers key areas such as professionalism, communication, teamwork, understanding organisational policies, and effective travel planning.	This component helps students build confidence, manage stress, and cultivate a positive mindset. It focuses on goal-setting, self-reflection, and using feedback to support their personal growth and enhance their wellbeing.

Entry requirements

There are no specific entry requirements for this VQA T Level Foundation Course.

The course is primarily aimed at students aged 16-19 years, but may be suitable for students up to the age of 24 who have an Education, Health, and Care (EHC) plan.

NOTE: The T Level Foundation Year is designed to support students who may not yet have achieved a GCSE grade 4 or equivalent qualification in English and maths by providing targeted teaching and additional time to build their confidence and ability. Students who have not achieved the minimum requirement in English and maths will be expected to work towards achieving a GCSE grade 4 or a level 2 Functional Skills qualification during the course to meet the entry requirements for their chosen T Level route.

Key areas of learning

This T Level Foundation Course offers a balanced programme that helps students develop the essential technical knowledge, skills, and behaviours needed to progress onto a T Level within the Construction routes.

This includes an introduction to the core principles and industry-relevant practices drawn from the National Technical Outcome (NTO) for the T Level route.

Students will explore areas such as:

- built environments
- building controls
- tools and equipment
- building technology and scientific principles
- construction processes
- development of basic skills in a chosen occupation.

These topics are designed to give students a strong foundation for the more advanced technical learning they will encounter on the T Level and will support their understanding of how technical knowledge is applied in real workplace settings.

English, maths, and digital skills, relevant to construction and the built environment, and transferable skills such as communication, problem-solving, and teamwork will also be developed during the course.

There are opportunities for employer engagement, personal development, and work experience linked to the construction industry, helping students build confidence, gain industry insight, and prepare for the expectations of the workplace.

Course structure

Students must complete the 3 Outcomes to achieve this T Level Foundation Course.

We have devised a simple, clear structure to showcase the knowledge and skills that students must be able to evidence to ensure they can successfully demonstrate each of the 3 outcomes. The layout comprises:

- technical knowledge and skills
- blended delivery (through a combination of theoretical and engaging, practical learning)
- supplementary delivery information for student stretch and challenge
- positive behaviours that may be demonstrated (such as professionalism, resilience).

The course provides the knowledge students must develop and the skills they are expected to demonstrate to fulfil the expectations of each outcome.

Each topic includes the essential knowledge, and the skills section details what students must be able to do in practice, ensuring that learning is applied and demonstrable within relevant contexts.

To support effective teaching and learning, each topic includes some suggestions on how the content can be taught.

Supplementary information is also provided to extend learning and encourage stretch and challenge for those who are ready to progress beyond the core requirements.

Outcome title	Guided learning hours (GLH)
01: Develop ideas to meet planning requirements for sustainable construction projects	50
02: Design sustainable construction projects	50
03: Produce sustainable construction project outputs*	50
Total (GLH) contact time, guidance, and supervision of a student for this course	150*

*** The Guided Learning Hours (GLH)** for this course are set at 150 hours to ensure appropriate provision for students with varying needs and to accommodate opportunities for stretch and challenge in each of the 3 outcomes.

*As part of Outcome 03, students are expected to develop basic technical skills in one chosen occupation from the following list, although there is the potential to provide tasters of a range of occupations and T Level occupational specialisms:

- bricklayer
- carpenter/jointer
- electrical installer
- painter and decorator
- plasterer
- plumber.

Centres should ensure that students have opportunities to practise and apply these skills in safe and realistic settings.

English, maths, and digital skills in the T Level Foundation Course

English (communication), maths (numeracy), and digital skills are essential components of the T Level Foundation Course. Details of where these skills are embedded and developed are set out in the National Technical Outcome (NTO), linked in the website section of this specification, which outline the specific opportunities for teaching and application. Some skills will be explicitly taught, while others will be embedded through the delivery of the wider course content.

- **English (Communication)**: Communication skills will be developed through tasks that require students to articulate their ideas and present information clearly. These skills will be embedded within the context of the course, ensuring they are relevant to industry and student learning.

- **Maths (Numeracy)**: Numeracy skills are integrated into the qualification, particularly when students need to apply mathematical principles in real-world contexts. This includes tasks involving measurement, calculations, and data interpretation.
- **Digital Skills**: Digital skills will be embedded through the use of relevant software and tools that students will need in construction and the built environment. These skills will be developed and applied in context, ensuring students understand their practical applications.

Assessment

Assessment approach

All students must be assessed in English.

Centres are expected to create their own assessments that reflect the aims of this T Level Foundation Course, ensuring alignment with the National Technical Outcome (NTO) for the subject area. When designing them, tutors must consider the depth and breadth of knowledge allowed by each task.

The assessments may be on an individual outcome basis or designed holistically for the whole course across all 3 outcomes. Whichever approach is used, assessments should also reflect and align with the embedded English, maths, and digital skills.

Assessment might include a mix of:

- examinations
- assignments
- case studies
- projects
- observations.

Assessment activities should enable students to demonstrate the knowledge, skills, and behaviours outlined across all outcomes, showing how these can be applied in realistic, work-related contexts to support progression to T Level study or employment.

The specification does not prescribe a fixed approach, as this allows centres the flexibility to adapt delivery to their own context and to respond to the individual needs of students. Tutors should use their professional judgement to select methods that provide students with meaningful opportunities to apply and develop the required skills, whether in classroom, simulated, or workplace settings.

All assessments should be supported by appropriate internal quality assurance activities to make sure they are consistent, purposeful and support each student's progression, particularly when holistic assessment is used.

All assessments must be designed to ensure that students are appropriately prepared for the demands of the T Level route and reflect real-world applications.

Establishing consistency in assessment writing

Centres must implement appropriate and consistent assessment approaches to ensure student work is marked fairly and in line with VQA expectations.

All delivery staff must be familiar with the mandatory teaching content and assessment expectations and apply the same interpretation of knowledge and skill topics when designing and marking assessments.

Assessment should follow a standardised format to ensure consistency in language, structure, and level of demand.

Tutors must use clear marking criteria and participate in regular standardisation activities to agree on the pass standard. Processes must be in place to confirm the authenticity of student work, and centres should ensure a transparent, accessible procedure is available for students to appeal a fail decision.

Achievement and progression

This is an unregulated course, and assessment will take place throughout the year. The assessment model is based on a pass/fail outcome, with no grading.

To pass the course, tutors must be satisfied that the students have met the 3 outcomes.

It is essential that tutors actively monitor student progress and provide timely and constructive feedback, highlighting areas for improvement and reinforcing their achievements. This ongoing feedback will ensure that students are given every opportunity to address any challenges and stay on track to successfully demonstrate the outcomes by the end of the course.

Centres should ensure that the Student Certification Form, available in the T Level Foundation Course resources section on the website, is completed when claiming learner certificates. Certificates will not be issued without the submission of the completed form. Centres are required to submit the form via email to operations@vqa.org.

Health and safety considerations

Centres must ensure that all activities and tasks undertaken as part of this T Level Foundation Course are carried out with due regard to health and safety.

Students should only engage in activities within a supervised environment, or where appropriate, in a suitably controlled simulated setting. Centres are responsible for ensuring that all delivery and assessment activities comply with relevant health and safety requirements and safeguarding considerations.

Course Delivery

Monitoring student progress

Centres are expected to monitor students' progress throughout the course through regular tutor and student review points. Ongoing reviews should be used to identify each student's strengths and development needs, track progress in English, maths and digital skills, and monitor competency in employability skills and behaviours.

A range of methods should be used to review their progress, including regular feedback, formative assessments, and observations, with all activities documented to inform decisions about any additional support or interventions.

Students should be supported to take ownership of their learning and development by having a clear understanding of their goals and working with their tutors to agree on an individual development plan that sets out key objectives and milestones.

VQA has devised a number of templates to support the administration and delivery of this course. These can be accessed via the VQA website.

Adapted learning

Centres should take reasonable steps to ensure that all students are given fair access to learning and assessment opportunities. This includes anticipating potential barriers, adapting delivery methods where appropriate, and offering flexible arrangements that enable participation. Centres are encouraged to adopt a student-centred approach that reflects best practice in supporting diverse needs.

For more information, please refer to VQA's Reasonable Adjustments and Special Considerations Policy on our website.

Resources

All teaching materials and additional resources used to support the delivery of this foundation course must be age-appropriate. Centres should carefully consider student safeguarding and wellbeing when developing or sourcing materials in line with the centre's policies and procedures.

VQA has produced a Centre Resources Pack that includes a range of useful templates to support the assessment, ongoing monitoring, and pastoral support of your students.

This is a free, optional resource to support the administration of the T Level Foundation Course and may be accessed via the VQA website.

Personal development opportunities

Centres should include meaningful personal development and enrichment opportunities that help students to build the study skills, behaviours, and transferable skills needed for success on a T Level and in the workplace.

Additional enrichment opportunities, ideally aligned with students' intended T Level route or career goals, might include trips or volunteering activities, or participation in programmes such as The King's Trust.

Student pastoral support

Pastoral support is a vital part of any T Level Foundation Year and plays a key role in preparing students for progression to the demands of a T Level. Many students who register on a foundation year need encouragement, structure, and clear guidance to help them move forward.

A T Level Foundation Year should offer students tailored support to help them build confidence, resilience, and independence as they make the transition from GCSEs to level 3 study. This includes helping students to develop personal skills and support their wellbeing.

Centres should provide regular mentoring sessions as part of the pastoral support offer. These meetings will allow students to reflect on their progress, set goals, and address any issues at an early stage. Pastoral support should also monitor engagement, attendance, and personal development.

Safeguarding and mental health support are essential. Centres must have clear procedures in place to identify and respond to any wellbeing concerns, and students should have access to mental health services or signposting where needed. This is particularly important for students who are unsure of their next steps.

Support for students with special educational needs or disabilities (SEND) must be personalised, with appropriate adjustments made both in the classroom and during work experience activities. Centres should work closely with employers to ensure that any specific needs are understood and met. Overall, pastoral support should help ensure that every student feels supported, understood, and ready to progress confidently to their T Level.

Work preparation

Work experience is a key element of a T Level Foundation Year, supporting students to prepare for their T Level industry placement. Wherever possible, placements should align with the student's intended T Level route; however, alternative opportunities may be offered where employer availability is limited. All students should participate in meaningful, work-related activities and tailored workplace preparation, informed by an assessment of their individual work readiness.

Where a formal work placement is not possible, centres are encouraged to provide alternative forms of industry engagement to ensure students gain relevant and practical exposure to the workplace.

Preparation activities should cover core workplace knowledge and skills and may include:

- employer-led talks
- presenting projects to employers
- industry visits

- pre-placement site visits
- site visits
- mock interviews
- industry mentoring
- travel planning.

Centres must work closely with employers to ensure support and accessibility, safeguarding and health and safety considerations, including reasonable adjustments under the Equality Act 2010.

Student registration

Once approved to offer this T Level Foundation Course, centres must follow VQA's procedures for registering students. Student registration is at the centre's discretion, in line with equality legislation and health and safety requirements.

Centres must register students before any assessment can take place.

Progression after this course

This T Level Foundation Course aims to prepare students to progress onto a T Level. Successful students can progress to:

- T Level Technical Qualification in Building Services Engineering for Construction
- T Level Technical Qualification in Design, Surveying, and Planning for Construction.

Students will need to apply for entry to the T Level via a centre's standard enrolment processes.

Where progression to a T Level is not appropriate for a student, centres will need to provide students with advice and guidance to support them in determining their next steps, which may include:

- a level 2 or level 3 study programme
- an apprenticeship
- employment.

Centres must provide appropriate careers guidance to help students plan their next steps and ensure the completion of any qualifications, including English and maths.

Staffing and Quality Assurance

All members of staff involved with the delivery of this T Level Foundation Course (tutors or internally quality assurance staff will need to be occupationally competent in the subject area. This could be evidenced by a combination of:

This could be evidenced by a combination of:

- a higher-level qualification in the same subject area.
- experience in the delivery/assessment/IQA of the course.
- work experience in the subject area.

Staff members will also be expected to have a working knowledge of the requirements of the foundation course and a thorough knowledge and understanding of the role of tutors/assessors and internal quality assurance. They are also expected to undertake continuous professional development (CPD) to ensure they remain up to date with work practices and developments associated with the courses they assess or quality assure.

Tutor Requirements

Tutors who deliver this foundation course must possess a teaching qualification appropriate for the level. This can include:

- Further and Adult Education Teacher's Certificate
- Cert Ed/PGCE/Bed/MEd
- PTLLS/CTLLS/DTLLS
- Level 3 Award/Level 4 Certificate/Level 5 Diploma in Education and Training.

Assessors

Staff who assess this foundation course must possess an assessing qualification appropriate for the level or be working towards a relevant qualification and have their assessment decisions countersigned by a qualified assessor. This can include:

- Level 3 Award in Assessing Competence in the Work Environment.
- Level 3 Award in Assessing Vocationally Related Achievement.
- Level 3 Award in Understanding the Principles and Practices of Assessment.
- Level 3 Certificate in Assessing Vocational Achievement.
- A1 or D32/D33.

Quality Assurance

Quality assurance for this VQA T Level Foundation course should be carried out by experienced professionals within the centre to ensure it meets learning standards.

Centres should implement regular checks on student progress, provide constructive feedback, and maintain a supportive environment. Centres should also ensure that staff delivering the course are suitably qualified and experienced. Additionally, centres will

receive an annual request to provide samples of student work and confirmation of the qualifications of those involved in delivery.

Useful Websites

- Department for Education
- T Levels
- T Level Foundation Year Framework for Delivery
- The Skills Builder
- Barclays Life Skills
- Skills England

You may also find the following websites useful:

- National Technical Outcome Construction and the Built Environment

Teaching Content

Course structure

The structure of the T Level Foundation Course is informed by the National Technical Outcome (NTO) to ensure a comprehensive and cohesive learning experience for the students.

Each outcome is underpinned by a clear rationale, providing context for its relevance to support progression to a T Level.

The content is divided into **knowledge** and **skills** to support a focused and progressive approach to learning.

We provide **supplementary information** to deepen understanding and offer opportunities for stretch and challenge, ensuring students are encouraged to reach their full potential and support progression to level 3 study.

Additionally, English, maths, and digital skills are embedded throughout the course, with guidance on how these competencies may be integrated into learning activities.

The course also includes a strong emphasis on **transferable skills** and **behaviours**, preparing students for successful progression in both their further studies to a T Level and to future employment.

Outcome 1 (O1): Develop ideas to meet planning requirements for sustainable construction projects

This outcome focuses on the requirements for the approval of a sustainable construction project. The content provides students with an understanding of how construction projects meet local needs and regulations, relevant to different roles across the sector. Built environments and building controls introduce students to potentially challenging concepts within familiar contexts, helping them build confidence for progression to level 3 study. The outcome also develops skills in technical measurement, investigation, and decision-making skills, and written communication through reading, note-taking, and the production of clear documentation. Digital skills will enable students to explore secondary data online and create documents with images linked to a construction site. To apply their learning, students will respond to client briefs and present their ideas in writing to a client.

The knowledge topics in this section are mandatory and must be covered in full. Tutors have the discretion to deliver these topics using the teaching approaches, examples, and activities that best suit their students' needs.

Knowledge Topic 1: Built environments	
	The student must understand:
K1	Built environments: characteristics of different types, designations, uses by different stakeholders of built environments, and value of built environments to different stakeholders
	Tutor guidance:

K1 Built environments:

Tutors should introduce students to the **characteristics of different types** of built environments: residential, leisure and recreation, industrial and commercial, retail spaces, mixed-use, and infrastructure.

Tutors should explore the value of these environments to **different stakeholders**, such as owners, users, and the local community.

They should review the different **designations** of built environments (listed buildings and protected areas) and provide information on the **value of built environments** (social, economic, and environmental).

Supplementary information to support stretch and challenge:

The tutor could introduce:

- knowledge in relation to unfamiliar environments and types of construction projects, with unknown planning controls, where students investigate controls and identify potential issues with proposals.
- factors that affect the value of the built environment and how changes in value affect stakeholders.
- how built environments can transform communities.

Knowledge Topic 2: Building controls	
	The student must understand:
K2	Requirements: local planning requirements, building control requirements, permissions, and restrictions
K3	Planning application process: key stages, associated documentation, timescales, and roles involved
K4	Rules of ethics and professional conduct for construction industry personnel

	Tutor guidance:
K2 Requirements: Tutors should introduce students to **local planning requirements** and **building controls**, building regulations, local plans, and local styles. Explore the **permissions and restrictions** of planning requirements for the Zero Carbon Agenda and the use of sustainable materials involved in construction projects, focusing on how these impact design and development**.** **K3 Planning application process:** Tutors should cover the planning application process by outlining the **key stages**, **the associated documentation** required, **timescales**, and the **roles** of those involved. **K4 Rules of ethics and professional conduct:** Explore the importance of the **rule of ethics** and **professional conduct** for the construction industry.	

Knowledge Topic 3: Tools and equipment	
	The student must understand:
K5	Measurement equipment: characteristics, purpose, safety, security, storage, maintenance, operation, and applications
	Tutor guidance:
K5 Measurement equipment: Tutors should introduce students to **measurement equipment** to include measuring tapes, digital/laser levels, and multimeters. They should then explore their **characteristics, purpose**, **safety, security, storage, maintenance**, **operation**, and different **applications**.	
	Supplementary information to support stretch and challenge:
The tutor could introduce: • the impact of technology on construction projects.	

Knowledge Topic 4: Sustainability
The student must understand:

K6	Sustainable development: national and international development goals, purpose of targets, associated actions, benefits of sustainability actions to organisations, societies and environments, restrictions and permissions
K7	Construction project development life cycle: stages and related sustainability issues
K8	Sustainable actions used to enhance the value of built environments

Tutor guidance:

K6 Sustainable development:

Tutors should introduce students to **sustainable development** by introducing **national and international development goals** (United Nations Sustainable Development Goals), explaining the **purpose of targets,** and **the associated actions**. Highlight the **benefits of sustainability actions** to **organisations, societies**, and **environments**, and outline the **restrictions and permissions** that guide sustainable practice.

K7 Construction development life cycle:

Tutors should explain the stages of the **construction project development life cycl**e. They should explore each **stage** and link this to the **related sustainability issues**.

K8 Sustainable actions used to enhance value:

Introduce students to the sustainable actions used to enhance the value of built environments.

Supplementary information to support stretch and challenge:

The tutor could introduce:

- positive and negative impacts of construction on an environment and the measures that can be taken to minimise negative impacts at different stages in the development cycle.

Knowledge Topic 5: Information and data	
	The student must understand:
K9	Sources of data and information used to support construction projects: purpose, typical content, typical formats, and terminology
K10	Validity of information and data: accuracy, reliability, currency, and bias
	Tutor guidance:

K9 Sources of data and information used to support construction projects:

Introduce students to typical sources of data and information used in construction projects, including **circuit diagrams, drawings, sketches, new rules of measurement, building regulations, and geomatic sources such as Ordnance Survey (OS) maps and topographical maps**.

Students should explore their purpose, typical content, formats, and terminology.

K10 Validity of information and data:

Introduce students to the validity of information and data, focusing on accuracy, reliability, currency, and bias.

Knowledge Topic 6: Investigation	
	The student must understand:
K11	Referencing of sources: techniques used to reference sources directly, paraphrasing, and different types of sources
	Tutor guidance:

K11 Referencing of sources:

Tutors should introduce students to **techniques** for **referencing sources directly,** the use of **paraphrasing**, and **different types of sources**.

Knowledge Topic 7: Communication	
	The student must understand:
K12	Geomatics: principles, mapping conventions, use in presenting information and data related to construction and the built environment
K13	Principles of effective communication: conventions of different types of written communication and suitability for different types of audiences
K14	Reading: principles, reading for comprehension, identifying salient points, summarising key points, and synthesising information from different sources
K15	Spelling, punctuation, and grammar (SPAG): punctuation markers, grammatical conventions, and spelling of key technical and non-technical terminology
	Tutor guidance:

K12 Geometrics:

Tutors should introduce students to the **principles** of geomatics, including **mapping conventions** and their **use in presenting information and data related to construction and the built environment**.

K13 Principles of effective communication:

Tutors should ensure students understand the **conventions of different types of written communication**, such as reports, emails, and memos. Tutors should support students in recognising the **suitability for different types of audiences**, ensuring clarity and relevance in construction contexts**.**

K14 Reading:

Tutors should explore the **principles** of **reading for comprehension**, focusing on **identifying salient points**, **summarising key information**, and **synthesising information from different sources**. They should explain how these skills support effective understanding and analysis of construction-related documents.

K15 Spelling, punctuation, and grammar (SPAG):

Tutors should emphasise the importance of **spelling, punctuation, and grammar (SPAG)** in construction documents. Explore **punctuation markers, grammatical conventions**, and the **correct spelling of key technical and non-technical terminology**.

Knowledge Topic 8: Numeracy	
	The student must understand:
K16	Standard units of measurement: length, area, volume, capacity, and conversion between units
K17	Measurement: principles, standards, terminology, errors, and accuracy
	Tutor guidance:

K16 Standard units of measurement:

Tutors should introduce students to **standard units of measurement** for **length, area, volume, and capacity**. Explore how to **convert** between different units and apply these measurements in construction projects.

K17 Measurements:

Tutors should explain the **principles and standards** of **measurement**, including the **terminology** used in construction. They should explore the importance of **accuracy**, potential **error**s in measurement, and methods to ensure precision.

Knowledge Topic 9: Digital	
	The student must understand:
K18	Software: features, functions, and applications for software to create and edit text
K19	Protection of information and data: legal framework, risks to confidentiality and security, and procedures used to mitigate those risks
K20	Online/internet searches: techniques used to carry out and refine searches, Search Engine Optimisation (SEO), and its implications for search results
	Tutor guidance:

K18 Software:

Tutors should introduce students to the **features, functions**, and **applications** of **software** used to **create** and **edit text**.

K19 Protection of information and data:

Tutors should emphasise the importance of the **legal framework** surrounding the **protection of information and data**. They should consider the **risks to confidentiality and security**, and the **procedures** used to **mitigate these risks**.

K20 Online/internet searches:

Tutors should explain the **techniques** used to **carry out** and **refine** online **searches**. They should explore **Search Engine Optimisation (SEO)** and **its implications for search results**.

Outcome 1 (O1): Develop ideas to meet planning requirements for sustainable construction projects

This outcome also supports the development of key technical and transferable skills. Students will build technical measurement skills to ensure learning remains practical, with opportunities to apply their knowledge through visits to construction and built environment sites.

Investigative and decision-making skills are developed in credible and authentic contexts. These transferable skills are valuable for progression both to T Levels and more broadly to Level 3 study.

Communication skills are a central focus, particularly written communication. Through investigations, students will encounter written information to read, interpret, and synthesise, with further development supported by producing clear and coherent documentation.

Numeracy skills are embedded through measurement, the application of units, and geometry, helping students explore potential construction sites and align their findings to planning requirements. Digital skills complement this learning by supporting online research, developing documents, and incorporating images related to construction projects.

Students will also work with client briefs, for example, a small extension or an internal room change. They will investigate the planning requirements and similar projects before developing their own ideas and presenting them in writing to a client.

Skill Topic 1: Investigating	
	Students must be able to:
S1	Develop search criteria to support an investigation
S2	Identify sources of information and data required for an investigation
S3	Reference sources of information
S4	Interrogate information and data for validity
Skill Topic 2: Decision-making	
	Students must be able to:
S5	Identify likely impact of decisions
S6	Assess evidence and advice to support decision-making
S7	Justify how a decision would lead to achieving objectives
S8	Substantiate proposals with evidence
S9	Conclude arguments
Skill Topic 3: Communicating	
	Students must be able to:
S10	Synthesise information and data from different sources
S11	Interpret planning information and data presented in different formats
S12	Apply written communication skills to clearly articulate a message
S13	Produce clear and coherent texts

S14	Apply appropriate vocabulary, grammar, form, structural, and organisational features to reflect audience, purpose, and context
S15	Summarise information and data
Skill Topic 4: Recording	
	Students must be able to:
S16	Transcribe information into proforma
Skill Topic 5: Numeracy	
	Students must be able to:
S17	Estimate lengths, areas, and boundaries of a construction project based on information provided
S18	Represent space at different scales using standard conventions
S19	Apply formulae to calculate area
S20	Calculate perimeters of 2D shapes
Skill Topic 6: Measuring	
	Students must be able to:
S21	Apply techniques to use measuring equipment effectively
S22	Measure existing topographical features in the natural and built environment
S23	Set out levels in an environment
Skill Topic 7: Digital	
	Students must be able to:
S24	Apply software functions to enter and format information and data
S25	Apply software functions to highlight key features in images

Behaviours			
B1 Perceptive	**B2** Resilience	**B3** Self-awareness	**B4** Self-confidence

Outcome 2 (O2): Design sustainable construction projects

This outcome focuses on the design of sustainable construction projects.

Design is not limited to surveying and planning but is a key concept in building services engineering and onsite construction, where roles such as a joiner or electrical installer require design skills. The outcome introduces students to building technology and science concepts, technical CAD skills, and transferable creativity skills to support progression to level 3. Communication skills within this outcome emphasise oral communication with a client, numeracy reinforces concepts from GCSE and Functional Skills maths through tasks such as scale drawings, and digital skills enable the presentation of design ideas. Students are expected to engage with a 'client' to clarify requirements and review alternative design options.

The knowledge topics in this section are mandatory and must be covered in full. Tutors have the discretion to deliver these topics at their discretion using the teaching approaches, examples, and activities that best suit their students' needs.

Knowledge Topic 1: Building technology	
The student must understand:	
K1	Performance requirements of buildings
K2	Structures: sub-structures, super-structures, purposes, characteristics of different types and contributions to achieving performance requirements of building superstructure components to achieve performance requirements of building
K3	Digital construction: building information modelling (BIM) principles
Tutor guidance:	
K1 Building technology: Tutors should introduce students to the **performance requirements of buildings**, focusing on how **strength** and **stability**, must be considered across different contexts. They should use clear examples to show how requirements vary in **domestic, industrial**, **commercial, leisure and recreation, retail, and mixed-use** built environment contexts. **K2 Structures:** Tutors should explain the purpose and characteristics of **sub-structure** components, such as **foundations, drainage,** and **utilities**, as well as **super-structure** components such as **walls, floors**, and **roofs**. They should explore how each supports contributions to achieving the performance requirements (strength and stability) of buildings and use examples from different building types to show variation**.** **K3 Digital construction:** Tutors should explore the principles of digital construction, focusing on Building Information Modelling (BIM) principles, including **employer information requirements** and **BIM execution plans.**	
Supplementary information to support stretch and challenge:	
The tutor could introduce: • budgets, budget control, estimating, financing and costing of construction projects and impacts of external factors on costs. • the effects of different factors on the performance of sub-structures, super-structures and materials.	

Knowledge Topic 2: Science	
The student must understand:	
K4	Behaviour of structural members under loads
K5	Mechanical principles and simple mechanical machines
K6	Electricity: electrical principles, units of electrical measurement and typical electrical calculations
K7	Heat: types, characteristics, effects on materials, heat transfer and evaporation and thermal conductivity
K8	Scientific developments contributing to innovative sustainable construction projects

Tutor guidance:

K4 Structural members:

Tutors should introduce students to how **beams** and **walls** behave under **loads**. They should highlight how understanding structural behaviour supports safe, efficient, and sustainable design choices when planning construction projects.

K5 Mechanical principles:

Tutors should explain to students the **mechanical principles: theory of moments**, **velocity** and **ratio**, and the **simple mechanical machines:** levers, **pulleys**, and **cogs.** They should explore with the students how these principles are applied in construction.

Tutors should also use this topic area to explore the **physics principles**: **force, pressure, light**, and **acoustics**.

K6 Electricity:

Tutors should guide students through the **principles** of **electricity**: **electrical flow, conductivity**, and **resistance**. They should explore the use of electrical measurements (Ohms) and **typical electrical calculations**.

K7 Heat:

Tutors should cover **heat types: latent** and **sensible**, and explore their characteristics and explain how they affect materials. The tutors should then explore the processes of **heat transfer, evaporation**, and **thermal conductivity**.

K8 Scientific developments:

Tutors should provide information about the **scientific developments** that contribute to **innovative, sustainable** construction projects. They should explore alternative energy systems: **solar** and **biomass,** and how the technologies are applied in construction projects.

Knowledge Topic 3: Materials	
	The student must understand:
K9	Materials: different types of natural and processed materials, properties, purpose and applications in construction projects
	Tutor guidance:
K9 Materials: Students should introduce students to **stone** and **copper** as examples of natural and processed materials used in construction. Explore their strength and conductivity properties, and explain their purposes and applications.	

Knowledge Topic 4: Sustainability	
	The student must understand:
K10	Sustainability: techniques and materials, and how they impact on building performance
K11	Technological developments contributing to innovative sustainable construction projects
	Tutor guidance:
K10 Sustainability: Tutors should introduce students to sustainability **techniques** such as **reusing** and **repurposing existing materials** in construction projects. Explore **materials** like **sheep's wool** and **cork/** and explain the **impact on building performance.** **K11 Technological developments:** Tutors should consider **technological developments** in construction, focusing on **artificial intelligence** and a**utomation**. Explore how these contribute to **innovative, sustainable construction projects**.	
	Supplementary information to support stretch and challenge:

The tutor could introduce:

- interaction between science and technology and building performance and performance efficiencies, and how performance efficiencies are calculated.
- mathematical techniques and applications used to measure efficiencies gained from sustainable techniques and materials.

Knowledge Topic 5: Information and data	
	The student must understand:
K12	Sources of information and data required to support the design of construction projects: purpose, typical content, typical format and terminology
	Tutor guidance:
K12 Sources of information and data required to support the design of construction projects: Tutors should introduce students to **sources of information** and **data** used to **support the design of construction projects**, including **client briefs, site plans**, and **Ordnance Survey (OS) maps.** They should explore their **purpose, typical content, typical format**, and **terminology**.	

Knowledge Topic 6: Communication	
	The student must understand:
K13	Sketching techniques and their application to presenting design ideas to others
K14	Principles of effective oral communication: two-way process (send and receive messages), methods (verbal, non-verbal) and styles (formal, informal)
K15	Oral communication: pitch, tone and intonation and their impact on how a message is received
K16	Non-verbal communication: types of body language and how they can be perceived, types and value of images and other materials when presenting information and data
K17	Engaging with an audience: techniques for establishing rapport, in conversation, in discussion and when obtaining and clarifying information
K18	Construction drawings: principles, types, terminology, purpose and conventions

	Tutor guidance:
	K13 Sketching techniques: Tutors should introduce students to sketching techniques: **hatching, lines, and elevations**. They should explore how these are **applied** to **presenting design ideas to others**. **K14 Principles of effective oral communication:** Tutors should explain the **principles of effective oral communication** as a **two-way process** of sending and receiving messages. They should explore communication **methods** (verbal, non-verbal) and the use of different communication **styles** (formal and informal). **K15 Oral communication:** Tutors should explain **pitch, tone, and intonation** and their **impact** on how a message is received. They should use this as an opportunity to explore **verba**l and **non-verbal** communication alongside **active listening.** **K16 Non-verbal communication:** Tutors should describe the different **types of body language** and **how they can be perceived**. They should explore the **types and value of images** and **other materials** when **presenting information and data**. **K17 Engaging with an audience:** Tutors should explain the range of **techniques** for **engaging with an audience** and **establishing rapport** in **conversation and discussion**. They should explore how to **obtain and clarify information**. **K18 Construction drawings:** Tutors should guide students through different types of construction drawings (location, assembly, component, and presentation). They should explore their **principles, terminology, purpose,** and **conventions**.

Knowledge Topic 7: Numeracy	
	The student must understand:
K19	Trigonometry: principles, trigonometric functions and use of trigonometry to determine dimensions in 2D and 3D

K20	Geometry: principles, properties of geometric points, lines and angles, Pythagoras' theorem and scale factors

Tutor guidance:

K19 Trigonometry:

Tutors should introduce students to the **principles** of **trigonometry** and **trigonometric functions**. They should explore the **use of trigonometry** to **determine dimensions in 2D and 3D**.

K20 Geometry:

Tutors should explain the **principles** of **geometry**, including the properties of **geometric points, lines, and angles**. They should explore the use of **Pythagoras' theorem** and **scale factors**.

Knowledge Topic 8: Digital	
	The student must understand:
K21	Computer-aided design (CAD): principles, features and conventions
K22	Software: functions and applications used to produce computer-aided designs
K23	Software: advanced functions and applications to produce digital presentation materials

Tutor guidance:

K21 Computer-aided design (CAD):

Tutors should introduce students to the **computer-aided design (CAD) principles, annotations and symbols**. They should cover the **features and conventions** used in construction design.

K22 Software to produce computer-aided designs:

Tutors should explain the **functions and applications of software** used to **produce** computer-aided designs.

K23 Software to produce digital presentation materials:

Tutors should explain the **advanced functions** and applications of software used to **produce digital presentation materials**.

Outcome 2 (O2): Design sustainable construction projects

This outcome also supports the development of practical and transferable skills. Students will build technical computer-aided design (CAD) skills, closely linked to design principles, providing an opportunity to apply their learning in practice.

Creativity skills are developed as part of the design process, supporting progression to Level 3 study. Communication skills focus on oral communication, such as speaking and listening, to reflect how students may interact with clients, for example, clarifying the requirements of a design brief.

Numeracy skills reinforce key mathematical concepts and techniques from GCSE and Functional Skills Maths, showing the link between construction and mathematics. For example, students will apply formulae when producing scale drawings of their designs. Digital skills complement this by enabling students to present their design ideas directly to a client.

Students will also have the opportunity to interact with a 'client' to clarify requirements and review alternative designs. This could be achieved through role play with peers, or through engagement with employer representatives or local community groups.

Skill Topic 1: Creativity skills	
	Students must be able to:
S1	Lateral thinking to consider opportunities from different perspectives
S2	Recognise ideas, alternatives, and possibilities
S3	Make novel connections between design ideas
S4	Form ideas iteratively
Skill Topic 2: Communicating	
	Students must be able to:
S5	Sketch 3D designs
S6	Apply communication techniques to secure audience understanding
S7	Apply technical language in relevant contexts
S8	Apply oral communication skills to clearly articulate a message
S9	Engage in discussion listening to and responding to questions and feedback

S10	Apply non-verbal communication techniques to support communication of key messages
S11	Synthesise information and data from different sources
Skill Topic 3: Numeracy skills	
	Students must be able to:
S12	Substitute numerical values into formulae and expressions
S13	Apply scale factors and scale diagrams to construction designs
S14	Use the standard ruler and compass constructions to create 2D representations
S15	Apply the properties of angles at a point
S16	Construct plans and elevations of 3D shapes
Skill Topic 4: Digital skills	
	Students must be able to:
S17	Apply software functions to produce computer-aided designs
S18	Apply advanced software functions to produce digital presentation materials

Behaviours			
B5 Respectful	**B3** Self-awareness	**B4** Self-confidence	**B6** Socially adept

Outcome 3 (O3): Produce sustainable construction project outputs

This outcome builds on the theme of sustainability, with a focus on technical, practical skills and their application to create an output that contributes to a sustainable construction project. It aligns with the route-based approach by complementing surveying and design, supporting engagement with theory and technical skills. The emphasis on technical skills supports student motivation and they are introduced to introducing concepts of health and safety, construction processes, communication, numeracy, and digital skills.

Students will read and interpret technical information, calculate resource requirements, use planning software, and produce an output of part of a sustainable construction project based on at least one occupation.

Important: For this outcome, students are expected to develop basic skills related to one occupation, although there is also scope to use it as a taster for a range of occupations and T Level specialisms.

The knowledge topics in this section are mandatory and must be covered in full. Tutors have the discretion to deliver these topics at their discretion using the teaching approaches, examples, and activities that best suit their students' needs.

Knowledge Topic 1: Construction processes	
	The student must understand:
K1	Construction occupations: different types, different levels, roles and responsibilities, contribution to construction projects, implications of the work undertaken to users and the local and wider community
K2	Construction projects: stages, sequencing of stages, factors that affect sequencing of stages, and potential implications for completion of a project, and different occupations and processes involved at each stage
	Tutor guidance:
K1 Construction occupations: Tutors should introduce students to the **different types** and **levels** of occupations in the construction industry, outlining the **roles, responsibilities**, and how they **contribute to construction projects**. Explain the impact of their work on **users** and the **local, wider community**. **K2 Construction projects:** Tutors should explore the **stages of a construction project:** setting up the site, groundwork, sub-structure, super-structure, external works and internal work and finishes, and the **sequence** they usually follow. They should explain the **factors** that can affect sequencing and the **potential implications** for project completion. Tutors should also guide students through **the different occupations** and **processes** involved at each stage, using real examples to link jobs to project progress.	
	Supplementary information to support stretch and challenge:
The tutor could introduce: • how construction processes and roles interact; analysis of a range of factors that can impact on successful completion of a construction project, and actions to be taken. • advanced technical skills for one or more occupations.	

Knowledge Topic 2: Health and safety	
	The student must understand:
K3	Typical health and safety hazards that individuals can create and encounter when applying technical skills to sustainable construction projects

K4	Likelihood and severity of health and safety risks associated with typical hazards
K5	Controls used to minimise health and safety risks
K6	Risk assessment: purpose, use, and content
K7	Techniques used to support healthy and safe working practices, including manual handling

Tutor guidance:

K3 Health and safety hazards:

Tutors should introduce students to the **hazards** they may create or encounter associated with **sharp objects** and **loose materials**. They should link these hazards to the application of technical skills in sustainable construction projects.

K4 Likelihood and severity of health and safety risks:

Tutors should explain the **likelihood** and **severity** of health and safety risks: **slips, trips**, and **falls** associated with the hazards causing harm.

K5 Controls:

Tutors should explore the different **controls** in place: **personal protective equipment (PPE**) and **housekeeping** are used to minimise health and safety risks. They should consider how the controls protect individuals and ensure a safer work environment.

K6 Risk Assessment:

Tutors should ensure students understand that the **purpose of a risk assessment** is to identify potential hazards, evaluate the risks they pose, and put measures in place to control them. Explain the **use** of a risk assessment and its **content**, such as hazard identification, risk evaluation, control measures, and monitoring.

K7 Techniques:

Tutors should explore the **techniques** that support healthy and safe working practices, including **manual handling** (lifting, carrying, and moving loads correctly to avoid injury). They should emphasise the importance of these techniques in reducing workplace injuries.

Supplementary information to support stretch and challenge:

The tutor could introduce:

- risk assessments and method statements.

Knowledge Topic 3: Tools and equipment	
	The student must understand:
K8	Tools: characteristics, purpose, security, safety, maintenance, and operation of hand-held and power tools used to apply an occupation's technical skills to sustainable construction projects
K9	Equipment: characteristics, purpose, security, safety, maintenance, and operation of different types of equipment used to apply an occupation's technical skills to sustainable construction projects
	Tutor guidance:
K8 Tools: Tutors should introduce students to the **characteristics** and **purpose** of **hand-held** and **power tools** used in sustainable construction projects. They should cover **security** (storage and handling), **safety** (use appropriate protective equipment, follow guidelines), **maintenance** (regular checks and cleaning), and **operation** (correct usage for efficiency and safety). **K9 Equipment:** Tutors should explain to students the **characteristics** and **purpose** of **equipment** used in sustainable construction projects. They should consider **security** (storage and handling), **safety** (using equipment safely), **maintenance** (regular inspections, cleaning, and servicing), and **operation** (correct use).	

Knowledge Topic 4: Materials	
	The student must understand:
K10	Materials: characteristics, purpose, applications, security, maintenance, and quantities of different types of materials used when applying an occupation's technical skills to sustainable construction projects
K11	Factors affecting choice of materials: sustainability, cost, availability, durability, form, and suitability for purpose
	Tutor guidance:

K10 Materials:

Tutors should introduce students to the **characteristics** and **purpose** of **materials: timber, timber-based products**, and **plastic pipework** used in sustainable construction projects. They should explain their **applications**, **security** (appropriate storage), **maintenance**, and **quantities** (how to estimate and manage material needs). Tutors should emphasise how selecting and handling materials correctly ensures sustainability and efficiency in construction.

K11 Factors affecting choice of materials:

Tutors should explain the factors that influence material selection in construction:
Sustainability: materials should be responsibly sourced to minimise environmental impact
Cost: materials must be within the project budget
Availability: materials need to be easy to source and obtainable within the required timescale
Durability: materials can withstand wear and last over time
Form: size and shape must suit the specific needs of the construction process
Suitability: appropriate for intended use, ensuring they meet all technical requirements.

Knowledge Topic 5: Quality	
	The student must understand:
K12	Quality: concept of quality, principles, difference between quality control and quality assurance, standards, and their application to construction projects
	Tutor guidance:

K12 Quality:

Tutors should introduce students to the **concept of quality**. They should explain the **principles**, and clarify the difference between **quality control** (the process of inspecting and testing materials and work to ensure they meet set standards) and **quality assurance** (the proactive process of planning, monitoring, and improving processes to prevent defects). They should discuss how **standards** (such as ISO or industry-specific codes) are **applied** to construction projects.

Knowledge Topic 6: Sustainability	
	The student must understand:
K13	Sustainability implications for the use of different materials in construction projects
K14	Waste management: principles, techniques (refuse, reduce, reuse, repurpose, recycle), and procedures in place within the sector to manage waste

	Tutor guidance:
K13 Sustainability implications: Tutors should introduce students to how the **use of different materials** in construction has significant **sustainability implications**. Students could consider renewable and recyclable materials, as well as local sourcing. Tutors may wish to highlight how the durability and life cycle of materials can affect a building's long-term sustainability and its carbon footprint. **K14 Waste management:** Tutors should explain to students the **principles** of waste management – minimising waste and its impact on the environment. They should explain the **techniques** commonly used in construction: **refuse** (avoiding the use of unnecessary materials), **reduce** (minimising the amount of waste produced), **reuse** (using materials again for the same purpose), **repurpose** (using materials again for a different use), and **recycle** (processing materials to create new products). Tutors should include the **procedures** in place within the construction sector to manage waste, such as waste segregation and safe disposal methods.	

Knowledge Topic 7: People	
	The student must understand:
K15	Professional behaviours: definitions and how behaviours are demonstrated
	Tutor guidance:
K15 Professional behaviours: Tutors should introduce students to **professional behaviours** and provide **definitions** for each one. They may refer to them as the standards of conduct, attitudes, and actions that are expected in a workplace environment. Behaviours may include qualities such as respect, reliability, integrity, and responsibility. Tutors should also explore with the students how behaviours are **demonstrated** and how they contribute to a positive work environment.	

Knowledge Topic 8: Project management	
	The student must understand:
K16	Project planning and monitoring: tools and techniques
	Tutor guidance:

K16 Project planning and monitoring:

Tutors should introduce students to **project planning and monitoring,** and how it involves setting clear objectives, timelines, and allocating resources effectively. They should explain the **tools** used in planning, such as Gantt charts, project timelines, and work breakdown structures, and discuss **monitoring techniques**, including progress tracking using software and key performance indicators (KPIs). They may wish to emphasise how these tools and techniques help keep projects on track, identify potential delays, and ensure resources are used efficiently.

Knowledge Topic 9: Information and data	
	The student must understand:
K17	Construction drawings: different types, their purpose, and conventions
K18	Sources of information used to plan construction projects: purpose, format, terminology and typical content

Tutor guidance:

K17 Construction drawings:

Tutors should introduce students to **construction drawings: location, assembly, component, presentation,** and how they are used to provide clear, visual representations of designs and construction details. Tutors should describe the **different types** of drawings and discuss their **purpose**: to guide the construction process, ensure safety, provide clarity, and coordinate between different stakeholders. Tutors should cover the **conventions** used in construction drawings, including symbols, line types, scales, and annotations that ensure the drawings are clear, consistent, and universally understood by everyone involved in the project.

K18 Sources of information:

Tutors should explain to students that there is a range of **sources of information: method statements, risk assessments, Gantt charts** used when planning construction projects. Tutors may also wish to include **data sheets**. They should explain the **purpose** of these sources of information, such as guiding decision-making, ensuring compliance, and organising resources. They should discuss the **format** and the **terminology** used in these documents. Tutors should also cover the **typical content** found in these sources of information, such as project timelines, budget, material specifications, safety regulations, and legal requirements. They should emphasise how accurate and detailed information ensures the successful planning and execution of construction projects.

Knowledge Topic 10: Communication

	The student must understand:
K19	Reading: principles, reading for comprehension, identifying salient points
K20	Spelling, punctuation, and grammar (SPAG): punctuation markers, grammatical conventions, spelling of key technical and non-technical terminology
K21	Vocabulary: technical and non-technical, used to achieve particular effects and for different purposes

Tutor guidance:

K19 Reading:

Tutors should introduce students to the **principles** of effective reading. They should explain how to read for **comprehension** by breaking down complex information and identifying **salient points** (the most important or relevant information). They may consider a focus on keywords, headings, and summaries to help students understand the core message and improve their ability to extract useful information.

K20 Spelling, punctuation, and grammar (SPAG):

Tutors should explain to students that **spelling, punctuation, and grammar** (SPAG) involve following rules to make writing clear and accurate. This includes using **punctuation marks**, such as full stops and commas, to separate ideas. It also involves following **grammatical conventions**, ensuring sentences are formed correctly, such as matching subjects and verbs. Students should also focus on correctly spelling both **technical** and **non-technical terminology**.

K21 Vocabulary:

Tutors should explain to students that **vocabulary** includes both **technical** and **non-technical** words, each used to achieve specific effects and for different purposes. **Technical vocabulary** – used for clear communication in a particular subject or field, while **non-technical vocabulary** – used for general communication or to explain concepts in simpler terms. Understanding when and how to use both types will support students to communicate more effectively.

Knowledge Topic 11: Numeracy	
	The student must understand:
K22	Numbers and the number system: techniques for the application of the four operations (addition, division, multiplication, subtraction)

Tutor guidance:

K22 Numbers and the number system: Tutors should teach students to apply the number system when solving problems, using the **four operations: addition, subtraction, multiplication, and division.** Tutors should explain the use of appropriate **techniques** for applying these operations.
Supplementary information to support stretch and challenge:
The tutor could introduce: • complex mathematical calculations based on missing data.

Knowledge Topic 12: Digital	
	The student must understand:
K23	Software: features, functions, and applications for project planning
	Tutor guidance:
K23 Software: Tutors should introduce students to the **software** used for **project planning.** They should consider the **features, functions**, and **applications** of the software to support project planning and show how these can be applied when planning their own projects.	

Outcome 3 (O3): Produce sustainable construction project outputs

This outcome reinforces the importance of sustainability, focusing on the development of technical, practical, hands-on construction skills. Students apply knowledge in practical contexts, building motivation and identifying potential challenges linked to occupational specialisms. Concepts of health and safety and construction processes are introduced through practical tasks. Students will develop basic skills in **one occupation**, with the option to experience tasters across different occupational specialisms.

Alongside technical skills, students develop transferable planning skills that support sustainable projects as well as their own work and studies. Communication is strengthened through reading and interpreting technical information, numeracy through the four operations when calculating resources, and digital skills through the use of planning software.

Students will work with a drawing of part of a sustainable construction project, produce a risk assessment, and a plan showing how different occupations would contribute to its completion, and create an output **based on at least one occupation**.

Construction skills – skills related to one occupation, as indicated:

Skill Topic 1: Bricklayer	
	Students must be able to:
S1	Prepare environments for activities
S2	Mark out required measurements
S3	Mix mortar to application requirements
S4	Cut brickworks to required shape
S5	Lay brickwork to project requirements
S5	Maintain plumb, line, and level
S7	Maintain tools and equipment
Skill Topic 2: Carpenter and joiner	
	Students must be able to:
S8	Prepare environments for activities
S9	Mark out required measurements
S10	Use tools and equipment to produce the required shaped timber-based components
S11	Cut timber-based products to size and shape
S12	Join timber-based components to other timber-based components and non-timber-based components, including fixtures and fittings, to project requirements
S13	Maintain tools and equipment
Skill Topic 3: Electrical installer	
	Students must be able to:
S14	Prepare environments for activities
S15	Isolate systems
S16	Mark out required measurements on wiring materials
S17	Cut wiring materials to required size
S18	Install wiring accessories to project requirements

S19	Maintain tools and equipment
Skill Topic 4: Painter and decorator	
	Students must be able to:
S20	Prepare environments for activities
S21	Prepare surfaces for coating
S22	Apply coatings to surfaces as required
S23	Maintain tools and equipment
Skill Topic 5: Plasterer	
	Students must be able to:
S24	Prepare environments for activities
S25	Set out plasterboard to studwork as required
S26	Affix plasterboard to backgrounds as required
S27	Apply plasters to internal surfaces as required
S28	Maintain tools and equipment
Skill Topic 6: Plumber	
	Students must be able to:
S29	Prepare environments for activities
S30	Isolate systems
S31	Mark out required measurements
S32	Cut pipework to required size and shape
S33	Bend pipework to required shape
S34	Join pipework as required
S35	Affix pipework to surface as required
S36	Maintain tools and equipment
Skill topic 7: Health and safety skills	

	Students must be able to:
S37	Assess an area for potential health and safety risks
S38	Apply Personal Protective Equipment (PPE) appropriately following agreed procedures
S39	Establish a safe working area
S40	Apply manual handling techniques when lifting and moving tools, equipment and materials as appropriate
Skill topic 8: Sustainability skills	
	Students must be able to:
S41	Minimise waste
S42	Dispose of waste sustainably
Skill topic 9: Planning	
	Students must be able to:
S43	Identify discrete steps to be followed to achieve an outcome
S44	Estimate time and resources required to achieve an outcome
S45	Prioritise activities required to achieve an outcome
S46	Sequence activities required to achieve an outcome
Skill topic 10: Self-managing	
	Students must be able to:
S47	Monitor own performance against objectives
S48	Manage own time in achieving objectives
S49	Move within an environment demonstrating situational awareness
Skill topic 11: Self-reflecting	
	Students must be able to:
S50	Identify success criteria for a task
S51	Consider process and evidence available for review

S52	Make judgements based on evidence available
Skill topic 12: Communicating	
	Students must be able to:
S53	Interpret information and data presented in different formats
S54	Apply written communication skills to create documents for different purposes
S55	Apply appropriate vocabulary and spelling to documents
Skill Topic 13: Numeracy skills	
	Students must be able to:
S56	Calculate resource requirements for sustainable construction projects
Skill Topic 14: Digital skills	
	Students must be able to:
S57	Apply software functions to produce project planning materials

Behaviours			
B7 Focused	**B8** Persistent	**B2** Resilience	**B4** Self-confidence

Appendix 1

Level 2 Command Verbs

These command verbs require students to demonstrate their understanding of facts, ideas, or concepts.

Command word	Definition
Apply	Use knowledge or understanding in a familiar situation to complete a task
Assess	Make a judgement about the value or importance of something using simple reasoning
Calculate	Work out the value of something, showing relevant working out
Choose	Select the most appropriate option from a limited range
Classify	Group items based on shared features or characteristics
Compare	Examine in detail and identify similarities and differences between them
Define	Give a definition or specify the meaning of an idea or concept
Demonstrate	Show understanding of a process or concept through simple examples, actions, or explanations
Describe	Give a detailed account of a subject or set out its characteristics or features
Discuss	Present key points about different ideas or strengths and weaknesses of an idea
Estimate	Make an approximate judgement or calculation based on known information
Explain (why)	Set out purposes or reasons, or make something clear in relation to a particular situation
Explain how	Provide a detailed account of a process or way of doing something
Give examples	Provide specific cases or instances that support or illustrate a point
Identify	Select from a list of options, point something out or give a list of main features

Illustrate	Explain or clarify something using examples, diagrams, or comparisons
Interpret	Explain the meaning of information or data
List	Provide a series of items or points without explaining or describing in detail
Outline	Set out the main characteristics or features
Plan	Outline basic steps or actions needed to achieve a goal, showing understanding of the order or purpose of each step
Record	Accurately document information, actions, observations, or results
Select	Choose the most appropriate option from a limited range, showing understanding of why it fits the given purpose or situation.
Show	Present or demonstrate understanding through action, response, or simple explanation in a familiar setting
State	Express in clear, brief terms.
Suggest	Apply knowledge to a new situation to provide a reasoned explanation
Summarise	Give a brief account of the main points or ideas.
Use	Apply a tool, technique or method correctly and safely in a familiar context, following set procedures or instructions.

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