Technical Qualifications Teaching, Learning and Assessment

City & Guilds

A City & Guilds Group Business

City & Guilds Technical Qualifications sit at the heart of the City & Guilds TechBac, a new approach to skills-based education designed to prepare learners for the world of work. They can be delivered standalone or as part of TechBac.

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Section 1:

What's changed?

Types of Technical Qualifications

City & Guilds Technical Qualifications are a range of qualifications designed for 14-19 year olds, as a vocational alternative to general qualifications, supported by industry. They meet the requirements of the DfE categories of Technical Award, Technical Certificate and Tech Level Qualifications. These qualifications are recognised by the DfE as high-quality vocational qualifications that attract performance table points for schools and colleges. In addition, these Technical Qualifications have been developed in collaboration with a number of employers including Bosch, EDF and RSPCA to ensure that they meet employer needs and standards.

City & Guilds currently offers qualifications in the Technical Award, Technical Certificate and Tech Level categories, but not the Applied General category.

Technical Awards

These are level 2 qualifications aimed at KS4 candidates with a focus on the study of a broader industry sector or occupational group rather than a single occupation.

They are designed to fit within a GCSE programme allowing candidates to study these Awards in an applied way alongside 5 EBacc GCSEs.

Up to 3 Awards count towards the Progress 8 & Attainment 8 measures in the school performance tables.

Technical Certificates

These are level 2 qualifications aimed at KS5 candidates, which bridge the gap in some areas where specialist level 2 knowledge and skills are required before candidates can access a level 3 Tech Level, or for occupations where a level 2 qualification is recognised as entry to employment, either through an apprenticeship or directly.
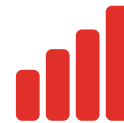
Technical Levels

These are level 3 qualifications, equivalent to A-levels aimed at KS5 candidates who wish to study the specialist knowledge and skills required for entry to a specialist occupation, either directly or through an apprenticeship.

They are recognised by employers, and support entry to higher education as they earn UCAS points. The Tech Levels contribute to the government TechBac performance table measures.

City & Guilds Technical Qualifications can be combined with City & Guilds Workplace Skills to attain the City & Guilds TechBac, or can be delivered as stand alone qualifications.

For more information, visit **cityandguilds/Techbac**

Qualification content

City & Guilds Technical Qualifications aim to provide an equally rigorous vocational alternative to general qualifications.

The learning content for the new Technical Qualifications has not been presented as 'units of assessment' as was required by QCF with learning outcomes and assessment criteria. Instead learning outcomes are supported by learning topics.

This structure is designed to encourage focus on teaching and learning rather than assessment. The candidates will be expected to be taught and develop the knowledge and skills required to achieve the learning outcomes, so that at the point of assessment they are able to deal with whatever the assessment requires of them.

The content of these Technical Qualifications is therefore designed in such a way as to ensure that the knowledge and understanding is directly relevant to practical or occupational problems and will aim to make links for teaching staff that support an implementation that encourages understanding in candidates of its utility in practice.

Assessment regime

The assessment regime for the City & Guilds Technical Qualifications is a change from previous qualifications on the QCF Framework. The QCF framework aimed to support transfer of knowledge and skills by crediting candidates at unit level in order that credits from one qualification could contribute to related qualifications if those qualifications contained the same or similar units.

The assessment strategy for the City & Guilds Technical Qualifications on the other hand aims to change this and in a similar move as to GCSEs and A-levels, City & Guilds has chosen to move from unit-based assessment of candidates' knowledge and skills over the duration of the course to summative assessment at the end of the course to allow centres to create coherent learning programmes.

For each Technical qualification there will be:

- At least one end, externally assessed theory examination, the questions for which will be drawn from critical knowledge across the mandatory qualification content. Their grading outcomes are pass, merit, distinction.

- A substantial synoptic end assignment that will require the candidate to be able to draw from and apply knowledge, skills and understanding from the breadth of the (mandatory) qualification content in an integrated way. They are graded pass, merit and distinction.

There may be some additional exams and assignments depending on the nature of the qualification, details of which can be found in the qualification handbook.

The boundaries for assessment grades are set through awarding processes. The grades for the individual assessments are then weighted and combined to give an overall grade for the qualification using a points-based system, details of which are provided in the qualification handbook.

Assessment methods

External examinations

These are written, externally set and examiner marked examinations taken on a set date and time, available towards the end of the learning program, with one re-sit opportunity available per academic year.

- Examinations are delivered online or on paper, with a range of question types ranging from multiple choice, short answer, structured and extended answer questions, with some requiring interpretation of a piece of source material, or case study.

- Exams are typically between 60 and 90 marks, with varying marks available per question and may include some 1 mark multiple choice type questions. Most will be in the range of 2-8 marks for short answer and structured questions and a few questions will be longer answer questions with 9-12 marks available.

- The exams are typically between 1½ and 2½ hours.

Examination specifications are developed to ensure that there is a consistent and suitable range of difficulty of questions available and that sufficient coverage across the qualification content is maintained. The specifications outline how many marks will be available in each exam for each learning outcome. The questions can sample from any topic within the outcome, so candidates must be prepared across the whole of the content as detailed in the qualification handbook.

Each paper is designed to present the candidate with similar levels of difficulty and a similar profile of demands, although it is acknowledged that there may be some variation for this style of question paper. For this reason, the boundaries for each paper are awarded each year to take into account how the paper has performed compared to previous papers.

While these examinations assess breadth of knowledge and understanding, they also expect candidates to be able to show they can bring together and apply this knowledge and understanding. This will require the candidate to demonstrate factual knowledge, understanding, and an ability to integrate the two in longer answer questions.

These papers will require candidates to provide an extended response and will ask the candidates to analyse, discuss, justify and give rationales. For these extended response questions, it is expected that candidates will be able to show clarity, depth of argument, and coherently expressed rationales in their answers; showing their ability to express themselves clearly, using a sustained line of reasoning which is relevant, substantiated, and which demonstrates a depth of understanding of their subject in order to access the higher grades.

Synoptic assignments

These assessments are set and moderated externally by City & Guilds. They are available in a set window towards the end of the learning period and are internally marked by tutors who have been internally standardised.

A different version of the assignment will be provided each year, but the evidence produced will be internally marked using the same marking grid each year, in order to support comparability across versions.

The synoptic assignment will usually have around 60-100 marks available, and is a substantial piece of work to be carried out independently. There will be no opportunity for tutors to provide feedback to candidates during the summative synoptic assignment. Candidates may only be supported in understanding what they have to do and given general pointers, without specific feedback on actions to take or quality of work. Any level of this support provided must be recorded.

Assignments will typically take between 6-20 hours during the assessment period depending on the qualification. Centres must distribute and manage the time available based on the nature of the assignment and how the delivery programme is implemented locally.

The assignments usually take the form of some sort of a briefing for the candidates. The brief will typically give a detailed account of the scenario of the client, so that the candidate can use this to draw on both the theory and skills they have learned to identify and develop an end product or outcome that can be judged as to its fitness for purpose in relation to the client scenario.

For further details of the moderation process see the *moderation guide.*

Assessment objectives

Marks are available in the exam and the assignment to meet a profile of demands relating to knowledge, understanding, skills, ability to bring these together (sometimes referred to as synopticity), as well as some behavioural aspects. These Assessment Objectives (AOs) are described in a generic way as follows, but are contextualised to the qualification content within each qualification handbook:

AO1	Recalls knowledge from across the breadth of the qualification.
AO2	Demonstrates understanding of concepts, theories and processes from across the breadth of the qualification.
AO3	Demonstrates technical skills from across the breadth of the qualification
AO4	Applies knowledge, understanding and skills from across the breadth of the qualification in an integrated and holistic way to achieve specified purposes.
AO5	Demonstrates perseverance in achieving high standards and attention to detail while showing an understanding of wider impact of their actions.

AOs 1-5 are used in all qualifications for the assignment.

Each AO is assigned a number of marks available for use during marking, effectively generating a mark scale for each AO. The marking grid (available as part of the qualification assessment pack) gives an indication of where different performances lie on each AO scale.

For exams, the specification uses AO1, AO2 and AO4. Marks assigned as AO4 typically refer to higher level cognitive skills, which will require the candidate to draw together understanding from across the qualification in analyses, comparisons, proposals and justifications often to answer questions related to a piece of source material.

In both the exam and the assignment, the weightings assigned to each AO will remain the same each year, ensuring candidates' results are based on assessment of the same profile of characteristics each year.

Tutors should explain to candidates that the AOs describe the basis of the marking of the synoptic assignment, and for each AO help them understand what good looks like. It is not, however, recommended that the full marking grid for the assignments be shared with candidates. This is simply because it is designed to place the marking on a scale, and does not represent the standard candidates should be aiming for. It is important to note that the mark bands do not align to grades. The more detailed explanation of AOs in the *marking guide*, and the subject-specific details in the *qualification handbook* are useful for this purpose.

For more information on the marking and moderation of the synoptic assignments, including the interpretation of the Assessment Objectives, and use of the marking grid, centres should consult the qualification handbook, sample assessments, and the *marking and moderation guides*, all available on the website.

Preparation for assessment

While the content in the handbook is laid out in units, this layout should not restrict the order in which content is taught. As a result of the holistic nature of the assessment and the intended outcome of candidates' getting deeper learning and greater ability to recall the content in various contexts in practice, it is expected that the content will not be completely taught in isolated blocks. As learning progresses, earlier pieces of learning will need to be revisited and linked to how they relate to new content.

There has been a lot of research into the 'testing effect', interleaving and spacing, as methods to support the retention of knowledge beyond the initial teaching period. These tend to be described in relation to their effect on recall during exams. Repeatedly practising recalling information after learning has been shown to increase candidates' ability to recall the content better at a later time compared to just re-reading, or revising the content. This is because the candidate is having to use their brain in an active way; they are practising 'getting the knowledge out again' and then shaping and using it in a particular way to meet the requirements of the question, and not just repeatedly 'putting it in', as is the case with highlighting, re-reading and other typical revision methods candidates tend to choose for themselves.

Expecting the candidates to use their taught knowledge and skills, and giving them repeated opportunities to practise this through a range of vocational problems/tasks, under guidance in the safety of the learning programme will help to give candidates the independence and the openness to try to tackle new problems themselves, rather than be put off by them. This should prepare them well for both the assignment and the exam, and embed the practice of purposefully calling on their knowledge to use in coming up with good solutions to technical problems taking account of the situation or context. Given the independence required of candidates during the unseen, summative assessment, and lack of support allowed at this point, the importance of providing support and the modelling that takes place in the learning period, before this stage, and the introduction of a gradually less supported practice towards end assessment, is important to note.

Mini scenarios, giving the candidates the chance to react to specific contexts and requiring them to recall knowledge and use and adapt skills, is good practice for candidates, and an opportunity to identify any gaps in understanding to inform teaching. However, it is also important to set some sufficiently large tasks throughout the programme, during which the marking grid for the live assignment is implemented. This will:

For candidates	For tutors
a. Initially give tutors the opportunity to model the sorts of evidence that are appropriate, and closer to summative assessment allow candidates to perform independently under assessment conditions	a. provide the opportunity for the marker or marking team in a centre, to practise implementing the marking grid: 　i. overseeing the collection of suitable evidence, 　ii. internally standardising marking 　iii. completing the forms 　iv. agreeing final marks
b. support candidates in getting into the habit of providing evidence 'explaining why' and justifying their actions and decisions ready for summative assessment	b. provide the opportunity to use the outcome to refine marking and standardisation practice
c. show how they will be marked during the assignment, and what 'excellence' looks like	c. provide the opportunity to use the outcome to inform teaching
d. provide opportunity to give feedback to ensure candidates perform at their best during summative assessment and to ensure it operates smoothly	

Command words in assessment

In examinations, certain words, often called command words, are used as prompts to give an indication to candidates of the type of response that is expected by the question. These words include 'state', 'describe', 'explain' and 'discuss'.

Similar words may be used in assignments, although not all of the behaviours that marks are available for will be explicitly referenced in the wording of the assignment – for example, AO 5, attention to detail, is expected without the need to necessarily ask for it in the assignment. The assignment will prompt candidates to show their knowledge when ordinarily it would remain hidden, however, and to this end prompts such as 'annotate', 'give rationales and justifications' are used.

Appendix 1 lists the typical command words used in examinations and assignments. The command words most commonly used in exams are marked with an 'E' and any that are most commonly seen in an assignment are marked 'A'. Meanings are provided to give an indication of the type of response expected, and an indication of the qualities that will be looked for during marking is also provided. Prompts that elicit longer or more involved pieces of work give the opportunity for evidence for a number of different AOs to be picked up, especially in the assignment.

As some AOs are not explicitly prompted in the assignment, it might be appropriate to use the list when discussing the AOs with candidates and ask them to consider how they may themselves use them as prompts when planning and reviewing their own work, and pointing out that as in an examination, what they do not show cannot be given any marks. Documenting the knowledge and thought process they have used is important, as well as demonstrating a high standard of work showing a high level of craftsmanship and care and attention to detail.

While an indication of what is expected when these words are used in assessments, it is important to be clear that these words do not stand on their own. In preparation for the exam, candidates should not focus on learning simply the meanings of these words in isolation from the rest of the question, but should be used to support the interpretations of the question or task.

For example:

- describe a _____

- describe the process for _____

- describe the effect of _____ on _____

Even though the use of 'describe' expresses a similarity in that what is required is a representation of something in words; a 'picture in words', all do require different sorts of answers:

- how they look

- a sequence of events

- the changes following some sort of impact.

The candidate is not being asked to give reasons, or suggest causes, which would be expected from an 'explain' question. The command words give an indication of the sort of response required and, along with the rest of the instruction or question the full meaning should be clear.

A 'discuss' or 'evaluate' question will usually be marked using level of response marking (ie marks based on level of quality of answer, rather than for individual points). The candidate will be required to compose a response which considers the topic of the question in detail, comparing and contrasting, or considering pros and cons; providing a discussion or argument which is justified and supported.

In examinations, the numbers of marks available for the question can give an indication of the depth of response expected. Half marks are never used, and as a general rule:

- short, low-tariff, 'state, list'-type, recall questions typically require a separate point per mark

- medium-tariff, 'explain'-type questions may require a point or limited explanation for 1 mark with a further mark available for more depth or explanation

- longer, 6-12 mark, 'discuss'-type questions expect a higher quality of response for higher marks, and these are usually marked using level of response marking.

Section 2:
Supporting excellent teaching, learning and assessment

The move to end assessment, outlined in Part 1, provides teaching staff with a range of exciting opportunities to take a fresh look at their approach to teaching and learning. As discussed, Technical Qualifications are assessed towards the end of the qualification through holistic, synoptic assignments and externally marked online exams. This end approach to assessment offers teachers, tutors and trainers more freedom and flexibility to plan and design learning that best meets the needs of all their candidates:

- units do not have to be taught sequentially; engaging learning content can be combined and reinforced throughout the duration of the qualification

- more time is available for teaching and learning, as there is no longer a need to continually complete individual assignments for each single unit; tutors and candidates can focus on developing mastery and 'deep learning'

- a holistic approach to the assessment favours a focus on teaching candidates to make meaningful links and connections; candidates are more able to see the 'big picture' and the relevance of what they are learning linked to the real world of work

- tutors have more space to promote creative and independent approaches to learning to develop the skills that employers and universities demand; encouraging candidates to be curious, to discover, to experiment and to explore.

This holistic approach may well be a new way of working. It is crucial therefore, that teaching teams carefully consider how best to plan teaching, learning and assessment to best meet the needs of candidates. It is recommended that this **'Planning Stage'** is carried out in collaboration with the broader teaching team, including employers and candidates themselves wherever possible. This will help to ensure that the **'Learning Stage'** is highly effective in engaging and supporting candidates to develop the knowledge, understanding and skills required to be successful at the **'End-Assessment Stage'** of the qualification.

Planning stage

- Identify and read all of the relevant documentation provided by City & Guilds for delivering the qualification (including; the handbook, teaching, marking and moderation guides).

- Involve the wider teaching team, including employers and candidates where possible.

- Take a holistic overview to the whole qualification and identify themes and content that could be covered together.

- Identify key content and concepts which need to be taught first, leading to more advanced content.

- Consider learning resources and the role of 'flipped approaches' to content coverage and extending learning outside of the classroom.

- Plan in opportunities for relevant visits and experiences which bring learning to life and reinforce the real world of work.

- Ensure sufficient time for regular formative assessment, such as mock assignments and revision are planned into the scheme of learning.

- Make use of City & Guilds planning support materials such as schemes of work available via our SmartScreen digital learning resource platform.

Teaching and Learning stage

- Use explicit instructional methods to maximise transmission of knowledge, and model application of knowledge to relevant work-based problems, methodically building understanding and skills.

- Support classroom learning with visits to the workplace, guest speakers from industry, master classes and engaging online learning content.

- Include regular formative assessments to check candidates' knowledge and understanding of key content throughout.

- Differentiate learning through challenge to give less skilled candidates the time to develop their knowledge and understanding and the most skilled candidates opportunities to go deeper and broader into the subject content.

- Use teaching and learning strategies which encourage candidates to be curious and creative, developing their confidence and increasing independence.

- Use projects and mock assignments to check understanding and skills and promote candidates' confidence with end assessments.

- Use City & Guilds sample assessments, examiner reports and mark schemes as a basis for developing formative and mock assessment materials to cover the full range of content, to prepare candidates to demonstrate their understanding and skills.

End-assessment stage

- Candidates should be well prepared and confident to undertake the exams and synoptic assignments to demonstrate their knowledge, understanding and skills.

- The teaching team should reflect on and revise the plan for learning, making good use of data including candidate comments and feedback.

How to plan for end assessment

City & Guilds Technical Qualifications provide teaching staff with a unique opportunity to redefine and redesign their plans for learning, teaching and assessment. Taking a holistic approach to teaching, learning and assessment at the planning stage will help candidates to develop a more confident grasp of the learning content and prepare them well for end assessment. It will help them to develop connections and deeper meaning, including a secure understanding of how different components work together in industry and the world of work. A holistic approach to planning will help tutors to avoid duplication, make best use of their time and challenge candidates to develop mastery of their subjects.

It is recommended that teaching staff work together during the planning phase to design a programme, based on the content laid out in the qualification handbook, that best meets the needs and contexts of their candidates. This could include valuable input from local employers who may contribute to the design of formative assessments or who may be able to help deliver key content through master classes. The role of learning resources, online learning platforms and learning environments should also be considered at this stage and how they can help to extend and support learning outside of the classroom.

As candidates' knowledge, understanding and skills will not be summatively assessed until the end of their qualification, it is important for teaching staff to plan schemes of learning that revisit and review key topics, include sufficient time for knowledge checks and use strategies such as mock assignments and projects. This is essential to check candidates are consolidating their learning and making secure connections throughout the qualification.

Learning by example:

Kalpesh is the Programme Leader for the City & Guilds Level 3 Advanced Technical Diploma in Supervision in Food and Beverage Services at a large college. As well as Kalpesh, there are three other assessors on this course. During the planning stage, the programme team felt it was really important for candidates to have a clear and secure understanding of relevant legislation early on in the programme. This ensures they know how to keep themselves, each other, clients and the general public safe and how important it is in industry. The team have a good relationship with a large, local four-star hotel and a number of former candidates now work there.

"As part of the qualification planning process, we organised an interactive learning day in the first term on 'Legislation in Food and Beverage' which was supported by an engaging talk from the restaurant manager at one of our local four-star hotels. Candidates found this day really engaging with what can sometimes be quite a dry topic. The event helps us to develop candidates' knowledge of key underpinning content from four different units, which we keep returning to throughout the scheme of learning. As candidates don't have to spend time writing up large amounts of coursework for each separate unit, we have more time for teaching, practice and application. We really enjoy this way of working."

This holistic approach by Kalpesh and his team helps to develop essential underpinning knowledge early on in the learning stage of the qualification, in an engaging and applied way. It also helps candidates to make connection and links to four different units in the qualification and prepares them well for their end assessment.

Unit 301	• Understand the implications of legislation on the service of food and beverages
Unit 304	• Know legislation and enforcement procedures relating to health and safety and food safety • Understand the role of the supervisor in complying with health and safety and food safety legislation
Unit 305	• Understand the legal and social implications of beverage service
Unit 306	• Legislative requirements relevant to restaurant reception

Supporting you at the planning stage

City & Guilds is committed to fully supporting teaching staff to plan and deliver high-quality learning that inspires and challenges candidates. Examples of 'schemes of work' provide useful guidance on how different units within a qualification could be taught. Teaching staff are encouraged to explore the key outcomes, topics and learning content across the qualification to identify themes and connections that could be useful when planning learning.

High-quality teaching, learning and assessment

City & Guilds Technical Qualifications target five different assessment objectives across the specific learning outcomes that make up the qualification's suite of units. It is important that approaches to teaching, learning and assessment consider how these objectives and outcomes will be mastered by candidates in the learning stage. Unlike the previous modular approach to unitised assessment, end-assessment Technical Qualifications allow both teaching staff and candidates to focus on developing both breadth and a deep understanding of the qualification of study.

Teaching staff are encouraged to use a broad range of engaging learning strategies that help candidates to not only recall key knowledge but also to build on this through the development of higher order skills. To achieve the highest marks in the end assessment, candidates will need to demonstrate excellent achievement across all the relevant objectives. Learning strategies should develop candidates' confidence and allow them to improve their perseverance. Activities and tasks should challenge candidates to apply their underpinning knowledge drawn from across the breadth of the qualification to develop appropriate and accurate technical skills.

An end-assessment approach provides more time for teaching staff to use effective learning tools and techniques that allow candidates to experiment and innovate with the knowledge skills and understanding they have gained. They should allow candidates to work with and learn from others, developing their communication and collaboration skills.

Rather than developing knowledge in isolation, followed by a unit test of knowledge, tutors will need to revisit knowledge throughout the learning programme, building secure links and connections to new knowledge, while developing synoptic meaning and insight. Meta-cognitive activities which encourage candidates to learn about their learning and think about their thinking, will be useful in helping candidates to reflect on their learning processes, developing their confidence and independence. Teaching staff could consider a range of tools and learning strategies, with those that encourage independent practice as candidates become secure in their knowledge, after more guided instruction at the early stages to build knowledge and confidence quickly.

- Reflective learning tools help candidates to evaluate their approaches to learning and help prepare them for synoptic assignment, where they will be expected to explain their thinking and reasoning for their actions.

- Technology-enhanced learning can help to both support and challenge candidates and extend learning outside of the classroom.

- Supported problem-based learning (PBL) can be useful in encouraging candidates to draw on their knowledge and skills to solve work-related problems and questions.

Learning activities with employers help candidates to develop links between theory and practice. Trips and visits to a range of industry sector providers, along with employer master classes can help bring concepts to life, enabling candidates to apply and deepen their understanding of key terms, industry processes and models. Whilst candidates will gain most from direct interaction with employers, the use of technology such as the use of live webinars is also encouraged to maximise the range of interactions and opportunities. The use of different learning platforms and tools can help teaching staff promote both employer input and interaction, for example:

- live Skype interviews with staff direct from the workplace, particularly in more complex and hazardous environments

- real-time web chats where employers and their staff can answer candidates' questions

- social media feeds can help candidates develop an insight into key industry figures, communication and customer service approaches as well as emerging trends.

The importance of formative assessment

Ongoing formative assessment is a crucial part of the learning stage. Formative assessment provides essential feedback for teaching staff on how well candidates are making progress, how they may need to adapt their lesson plans and where key areas of the qualification content would benefit from being re-visited and reinforced. Formative feedback also provides feedback for candidates on what they must do to improve.

Formative assessment and specific 'feed-forward' targets all help to ensure that candidates are well prepared to take the external assessments. They should have demonstrated confidence with the necessary knowledge, understanding and skills of the qualification to allow them to be successful in their formal, summative end assessments.

Candidates who fail this assignment on first submission cannot achieve the qualification within the academic year.

During the learning stage, teaching staff are able to provide detailed and supportive feedback during and after formative and practice assessment that is useful to improve outcomes and learning. It is good practice to encourage candidates to reflect on this feedback to identify clear actions that will help them to improve performance in future. A number of different strategies can be used to ensure candidates are making sustained progress throughout their qualification:

Practical assessment tools:

Knowledge checks	Regular checks of knowledge recall can be very helpful to ensure candidates are making good progress with AO1 and 2. For example, this could be through online quizzes in the virtual learning environment, or weekly tests of key content at the start of learning sessions.
Mock assignments	Mock or practice assignments can help candidates to draw on and apply their developing understanding and skills from across the breadth of their learning in an integrated way, helping to meet the demands of the synoptic assignment and AOs 1-5.
Self-assessment	Learning logs and journals can be useful for encouraging candidates to reflect on their performance and to evaluate their progress. This can be useful in helping candidates to demonstrate their perseverance and understand the impact of their actions – a requirement of AO5.
Peer assessment	Encouraging candidates to review and critique each other's learning can be helpful in developing an awareness of the expected standard and what they need to know, understand or do to meet the demands of the AOs.
Work-related scenarios	Working with employers, teaching staff can create challenging and engaging scenarios that require candidates to demonstrate their knowledge and skills in industry-related contexts.
Team challenges	Working in small teams, candidates could be set challenging, time-bound projects which encourage them to use trial and error, experimentation and creativity to solve problems. This supports the development of the high levels of performance through application of knowledge and skills necessary for achieving highest scores, especially in AOs 4 and 5.

Learning by example:

Sandie is a teacher on the City & Guilds Level 2 Technical Award in Designing and Planning the Built Environment. To check that candidates are developing a secure level of underpinning knowledge of the key concepts, she has introduced a weekly knowledge check at the start of the lesson. She uses different activities and tools to check this knowledge, from online quizzes and the use of mobile apps, to unseen written questions including multiple-choice and short answer responses. She often asks the candidates to swap and peer-assess each other's responses and to write constructive feedback and specific feed-forward targets for one another, to identify areas for improvement.

"At first, the candidates didn't like the knowledge check and were quite reluctant to swap their answers with each other. Often the comments that came back were basic and superficial, such as 'could do better' or 'you need to revise more!' As a group, we've all worked hard to develop good peer-assessment skills. Candidates are now able to give really useful written feedback to each other which is helping everyone to set targets and make really good progress."

Sandie made use of the qualification handbook, sample exam questions and sample assignments, available from the City & Guilds website, to help her develop the type of knowledge check questions that would be most useful. These will progressively build the basic knowledge required to tackle the exam, assignment and consequently the workplace:

Weekly Knowledge Check 6:

Name four elements of a building.
1.
2.
3.
4.

Identify four types of construction material.
1.
2.
3.
4.

Name four features of a sustainable community.
1.
2.
3.
4.

Total mark: /12

Feed-forward targets/priority for improvement:

Building on the knowledge checks, Sandie also prepares a range of different group and individual projects to prepare candidates well for undertaking the synoptic end-assessment assignment.

These practice or mock assignments help us to carry out independent research and solve a range of applied problems. When completed, to a formative assessment deadline, Sandie uses tutor, self and peer-assessment feedback to identify strengths and areas for further development. She is supported by a planning officer from the local council, who gives up some of his time to listen to student presentations and findings as part of their practice assignment.

Candidates then mark each other's attempts using the sample marking grids. This helps to develop their own understanding of what standard is required to progress through the three marks bands and to cover all the relevant assessment objectives. Candidates are encouraged to use the verbal and written feedback to set themselves challenging targets and clear actions in preparation for the formal end assessment.

Supporting you in the learning stage

City & Guilds offer a range of free and paid-for resources to support teaching staff during the learning stage of all its Technical Qualifications. Sample synoptic assignments, qualification handbooks and SmartScreen, Enhanced SmartScreen, Candidate Training Manual and Logbooks and Textbooks are available. For a list of resources available for your sector, please check the *qualification handbook* or the website.

Supporting you at the end-assessment stage

City & Guilds offer a range of free resources to support teaching staff prepare candidates well to be successful in the end assessment. Sample questions, exams, marks schemes, assignments and examiner and moderator reports are available to download and use to develop additional practice and mock assessments to ensure candidates develop confidence with the format and expectations of the formal summative assessments.

Preparing for exams

As discussed earlier, all City & Guilds Technical Qualifications include at least one externally set, externally marked exam offered twice a year online and on paper on published dates. It is crucial that candidates are well prepared through the learning stage to develop the required level of knowledge and understanding from across the breadth of the qualification. Candidates who fail at the first sitting will have only one opportunity to re-sit. If this is failed, the candidate will fail the qualification.

10 top tips for helping candidates prepare well for exam success

1. Build regular opportunities for knowledge and understanding tests into the scheme of work to ensure that key content covered at the start of the qualification has been retained and is well understood by candidates at the time of the end assessment.

2. Ensure that opportunities for recap, revision and recall are made available throughout the qualification, either in the classroom or by making use of blended and online resources and activities. Meta-cognitive and reflective tasks will help candidates to develop their self-awareness and confidence as candidates and to identify and use the learning strategies that best work for them.

3. Encourage candidates to use a range of different revision strategies that best meet their learning needs. For example memory techniques such as the loci method or 'memory palace', the use of mnemonics, and creating cue or flash cards can all help candidates to remember key knowledge content. Candidates could make use of mobile learning apps to prepare their own revision flash cards to help develop a secure understanding of key terminology, concepts and frameworks, for example Study Blue or Reviser.

4. Include activities which develop candidates' understanding of how to deal with different command verbs, for example the differences between responses which describe, explain, compare, discuss or evaluate. Teaching staff could use a selection of different responses and ask candidates to select the most appropriate command verb, and demonstrate, using think-aloud techniques to model how to approach more difficult questions.

5. Ensure candidates have developed their skills and take pride in their note taking. This will prepare them to capture and summarise the most important aspects of the learning content. These notes will be invaluable when they are preparing for their summative examination. A range of different note-taking systems can be useful, for example the 'Cornell Notes' method. A range of resources is freely available on the internet and in most study guides.

6. Use sample exams to develop candidates' confidence with the style and format of the examinations. Activities which ask candidates to take on the role of the examiner can be helpful in developing their understanding of what is expected from more challenging, longer response questions.

7. Unpicking examiner reports will help candidates to understand the different types of response that different questions require, for example more detail, more application or more analysis. Candidates should be able to anticipate the likely detail required from the marks available for each question. The exam specification available for each qualification shows the coverage of external exams across the qualification content.

8. Use techniques to help candidates not just to memorise facts and figures but also to make links and deeper connections. Visualisation and concept mapping can help candidates to apply their knowledge and understanding in different contexts and situations.

9. Candidates should be well prepared to manage their time effectively as independent candidates. Creating revision timetables or planners is a useful exercise to help candidates prioritise their learning activities, focusing on less secure areas of knowledge or where there might be gaps in their understanding.

10. Remind your candidates of the importance of staying fit and healthy in order to be well prepared physically and mentally to demonstrate their knowledge and understanding. The value of sleep, hydration, eating well and downtime should be reinforced in the build-up to the exam, which many candidates can find stressful. Simple relaxation techniques might be helpful for some candidates.

Learning by example:

Divanka is the course tutor for the City & Guilds Level 2 Technical Award in Digital Technologies at a small independent learning provider. He wants to ensure that his candidates are really well prepared to pass the online exam first time. He uses the sample exams available on the City & Guilds website to explain how each question is structured and what examiners will be looking for to award the maximum marks. He focuses candidates' attention particularly on:

- *the overall number of marks available*
- *the key command verb used in the question and what this means for the response*
- *how many factors need to be explained*
- *any other specific requirements of the question stem.*

He highlights the key considerations of the question and how this will help to remind candidates about how detailed their response will need to be to achieve all six marks:

'A company plans to archive data from its website from the previous year. **Explain three** factors to consider **before** archiving historical data electronically. (6 marks)'

"After leading a few model answers on the board, I ask candidates to provide their own response, drawing on their knowledge and understanding developed in the learning stage of the qualification. I always encourage candidates to swap their responses and use an extract from the sample mark scheme available from the City & Guilds website. Candidates really enjoy taking on the role of examiner and award the number of marks they feel it deserves. They work with their partner to discuss the marks awarded and if their marking is accurate."

One mark awarded for reference to the following; to a maximum of 6 marks

- *Size of data (1) could limit archiving capacity (1)*
- *Storage methods (1) dependent on cost, sensitivity, capacity (1) (on site, off site, cloud)*
- *Security of data storage (1) through encryption, authorised users, passwords (1)*
- *Disaster recovery capabilities (1) to allow for data to be restored if needed (1)*

After the marking activity, the group come back together to talk through their findings, highlighting responses that received the maximum marks and identifying any individual actions for improvement or further revision. Divanka uses the results to identify any additional support sessions or revision materials that might be useful for the whole group before they attempt their online exam for real.

Appendix 1

Use (A- Assignment/ E-Exam)	Prompt / command word	Definition	Likely AO(s) targeted	Typical indicators of quality looked for in mark scheme or marking grid
E	Identify	Recognise something, usually from an image, and state what it is	AO1	Correctness, completeness, relevance
E, A	Label	Add names or descriptions, indicating their positions, for example an image/drawing	AO1	
E	List	Give as many answers/examples as the question indicates	AO1	
E	State	Give the answer, clearly and carefully	AO1	
E	Name	Give the (technical) name of something	AO1	
E	Select	Choose (for example the correct material/tool for the job) by making careful decisions	AO1	
E	Define	Give the meaning of what something is, usually of a technical term	AO1	
E	Describe a...	Write what something is like – usually what it looks, tastes, feels, sounds like	AO1	
E	Describe the process for…	Give the steps in a process	AO1	Correctness, order, completeness, relevance
E	Compare (…and contrast) (or describe the similarities/ differences)	Look for and describe the similarities (and differences) between two or more things/circumstances	AO2	Accuracy, relevance, completeness, comprehension
E	Differentiate between	Show or find the characteristic differences between two or more similar things/concepts	AO2	
E	Distinguish between	Describe the characteristic differences between two things, or make one thing seem different from another	AO2	
A	Annotate	Add explanatory notes and comments	AO2	

Appendix 1 (continued)

Use (A-Assignment/ E-Exam)	Prompt / command word	Definition	Likely AO(s) targeted	Typical indicators of quality looked for in mark scheme or marking grid
E, A	Give example(s) /Illustrate	Use examples or images to support, clarify or demonstrate for example an explanation	AO2	Accuracy, relevance, completeness, comprehension
E, A	Calculate	Work out the answer to a problem using mathematical operators and concepts	AO2	
E	Summarise	Give the main/key points, which give a broad overview of something	AO2	Completeness, relevance, range, efficiency, clarity
E	Explain the...	Make clear or easy to understand by giving details	AO2	Comprehension, depth of knowledge, grasp, logic
E	Explain why	Give the causes of/rational for something/consequences of/ reasons for…	AO2 AO4	Reasoning, plausibility, relevance
E	Explain how…	Give the steps in, for example a process, clarifying causal relationships	AO2 AO4	Order, logic, reasoning, appropriateness of relationships
A	Prepare	Get/make ready for a task, for example, gather the correct information, tools and materials		Accuracy, economy, efficiency, reliability, completeness
A	Produce	Make, construct or compose for example an artefact, piece of writing/report	AO3	Accuracy, effectiveness, proficiency, efficiency, precision
A	Construct	Build something or put together different parts to form something whole	AO3	
A	Install	Put furniture, a machine or a piece of equipment into position and make it ready to use	AO3	
A	Perform	Execute a dance, piece of music	AO3	

Use (A-Assignment/ E-Exam)	Prompt / command word	Definition	Likely AO(s) targeted	Typical indicators of quality looked for in mark scheme or marking grid
E	Discuss	Talk/write about a topic in detail, considering the different issues, ideas, opinions related to it	AO4 AO2	Making links, cause and effect, drawing information together for a purpose, coherence, logic
E	Analyse	Study or examine usually a complex issue in detail to identify essential elements, causes, characteristics	AO4	
E, A	Give a rationale	Explain why you have taken particular actions/decisions	AO4	
E, A	Justify your decisions	Make a case for the decisions/actions taken explaining why they particularly meet the particular circumstances/context	AO4	
E	Describe the effect of (for example an event) on….	Write about what has changed/happened because of… (for example, an event)	AO4	
A	Reflect on	Give an account of your thoughts and reasons for decisions, and in hindsight whether you would do anything differently	AO5 AO4 AO2	
A	Plan the development of...	Identify and detail the stages, resources and actions required in the development of something, to meet a particular timeframe	AO4	Completeness, relevance, timeliness, practicability, efficiency, plausibility
A	Design	Make or draw plans and provide information to inform the production of something to meet specific requirements	AO4	Appropriateness, consideration of purpose, intent for example ration, make appropriate compromise
A	Observe	Watch carefully the way something happens, especially in order to learn more about/improve it	AO5	Attention to detail, consideration, focus, diligence, awareness
A	Inspect	Look at something carefully in order judge its quality or condition	AO5	Compared against standards, systematic, evidenced, thorough, quality
A	Check	Make certain that something is correct, safe or suitable by examining it quickly	AO5	

Appendix 1 (continued)

Use (A-Assignment/ E-Exam)	Prompt / command word	Definition	Likely AO(s) targeted	Typical indicators of quality looked for in mark scheme or marking grid
A	Assess	Make a judgement /decision about the quality of something	AO3	Compared against standards, systematic, evidenced, thorough, quality
E, A	Evaluate	Make an analysis about the success/quality of for example end product/outcome – usually systematic, proposing improvements	AO5 AO4	
A	Measure	Use appropriate equipment to determine the exact size or amount of something	AO5 AO3	Precision, persistence, awareness, care
A	Adjust	Change something slightly, especially to make it more correct, effective, or suitable	AO5	
A	Investigate	Systematically search for information on a topic to learn more about it	AO3	Appropriateness, relevance, referenced, considered, avoidance of bias
A	Research	1. Systematically scrutinise/examine information on a topic to learn more about it. 2. Carry out a systematic inquiry/investigation into a topic to discover new facts/test theories	AO3	
A	Create	Develop ideas in order to produce something new and original	AO4	Novel, challenging of convention, courageous, adventurous
A	Communicate	Give or exchange information to/with others	AO8	Impact, meaning, appropriateness, targeted

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