

Teaching and learning
support during
Coronavirus (COVID-19)



Illustration by Lucy Vigrass

Construction

Guidance for BTEC Nationals

Support

Last updated 15th May 2020



Formal assessment requirements

We have confirmed for BTEC Level 3 Nationals, BTEC Level 1 and 2 Firsts and Tech Awards, where we expect to be able to provide calculated results, we do not require or expect any formal assessment for BTEC to take place while learners are studying at home. We expect to collect centre assessment grades from teachers and tutors for any incomplete work for all learners and these judgements will be used in the calculation of a final result where relevant.

Supporting teaching and learning

Whilst not a requirement we are encouraging and supporting continued learning at home during this time, so when learners return to school or college, progress to HE, an apprenticeship, or work, they have the knowledge and skills they need to continue with confidence. We also recognise the benefits that learning and a structured day have on general health and wellbeing and we want to make sure that we are doing everything we can to best support you and your learners at this time.

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Qualifications in Construction that fall into the Calculated Result Category

Qual. No.	Qualification title
500/7138/5	Pearson BTEC Level 3 Certificate in Construction and the Built Environment (QCF)
500/7140/3	Pearson BTEC Level 3 Subsidiary Diploma in Construction and the Built Environment (QCF)
603/0862/X	Pearson BTEC Level 3 National Extended Certificate in Construction and the Built Environment
601/1095/8	Pearson BTEC Level 3 90-credit Diploma in Construction and the Built Environment (QCF)
603/0863/1	Pearson BTEC Level 3 National Foundation Diploma in Construction and the Built Environment
600/6817/6	Pearson BTEC Level 1/Level 2 First Award in Construction and the Built Environment
500/7137/3	Pearson BTEC Level 3 Diploma in Construction and the Built Environment (QCF)
603/1218/X	Pearson BTEC Level 3 National Diploma in Building Services Engineering
603/1217/8	Pearson BTEC Level 3 National Diploma in Civil Engineering
603/0864/3	Pearson BTEC Level 3 National Diploma in Construction and the Built Environment
500/7139/7	Pearson BTEC Level 3 Extended Diploma in Construction and the Built Environment (QCF)
603/1219/1	Pearson BTEC Level 3 National Extended Diploma in Building Services Engineering
603/1216/6	Pearson BTEC Level 3 National Extended Diploma in Civil Engineering
603/0861/8	Pearson BTEC Level 3 National Extended Diploma in Construction and the Built Environment
600/7048/1	Pearson BTEC Level 1/Level 2 First Certificate in Construction and the Built Environment
601/0259/7	Pearson BTEC Level 1/Level 2 First Diploma in Construction and the Built Environment
601/0258/5	Pearson BTEC Level 1/Level 2 First Extended Certificate in Construction and the Built Environment



Support for Blending Learning

1. Digital Textbooks and Revision Guides

We're providing **free 90-day access** for your centre to some of our digital learning resources which can be accessed in college or at home. The following digital Textbook bundles are all available via our online ActiveLearn platform:

- BTEC National Construction:
BTEC Nationals Construction Institutional Activebook: for up to 250 students
9781292183978

[>Find out more](#)

ActiveLearn provides core textbooks, online homework and practical activities, as well as front-of-class teaching resources, planning and assessment materials. You can allocate as much or as little from the e-Textbooks as you wish to your learners to access wherever, whenever.



Digital textbook bundles:

- KS4 Vocational Qualifications
- KS5 Vocational Qualifications

Revision

- KS4 Revision Guides
- KS5 Revision Guides

If you would like to access these resources please request access [here](#).

2. Online remote-delivery recordings for BTECs

- Introduction to online remote delivery
- Developing resources for online delivery
- Planning and teaching online
- Supporting students studying online

[> Find out more](#)





3. Digital Live Event and Recordings

Access recordings from our **Digital Live event: Enabling Education**

[> Find out more](#)

4. Get expert guidance from our community of online teaching and learning specialists

A range of free resources including blog articles and webinars to provide support, inspire ideas and enable you to channel your passions and expertise without feeling too overwhelmed. Browse articles and blog content and access via this [link](#).

5. Paid-for Teaching Resources

Pearson Learning Hub

NEW FOR 2020!

The Digital Learning Experience:
Pearson Learning Hub



This platform has a range of courses available with content broken down into bite-size learning chunks. It supports blended and online learning via the use of videos, online quizzes and resources that your learner can access.

For some courses, flashcards and infographics break down information further into accessible amounts of information.

Learning programmes currently include:

- **Workplace Behaviours** – soft skills training and development covering areas such as Resilience, Professionalism, Decision-making, Adaptability, Self-Management and Work Ethics.
- **Digital Technologies for non-experts** including Artificial Intelligence for Leaders, Artificial Intelligence De-Mystified and Digital Technology De-Mystified.

[>Find out more about Pearson Learning Hub](#)



6. Sector Body Resources

Sector body	Web page
www.rics.org/uk/	Standards, training, industry articles and professional development for surveyors
www.ice.org.uk	Standards, training, industry articles and professional development for Civil Engineers
www.cibse.org	Standards, training, industry articles and professional development for Building Services Engineers
www.ciob.org/	Standards, training, industry articles and professional development for Construction Managers
www.mobie.org.uk/	Pearson have partnered with MOBIE in developing new housing industry units for 2019 and provide training and resources to support the sector

Subject Advisor support and guidance

Subject Advisor: Evren Alibaba

Contact details:

- 0344 463 2821
- <https://support.pearson.com/uk/s/qualification-contactus>
- [Construction community](#)

Support sessions:

Once more information is around, fortnightly FAQ sessions can be provided, to support centres during Summer 2020.



Teaching and Learning to support transition to second year of a two-year programme

We are continuing to support schools and colleges to enable learners to continue with their studies from home. We are encouraging continued learning so when learners return to school or college they have the knowledge and skills they need to continue with their course.

The information below are examples of the type of content that would have been covered in a typical year 1 that is needed to support units/ components typically covered in the second year of a study programme

BTEC Nationals in Construction and the Built Environment 2010 (QCF) **and** BTEC Nationals in Construction and the Built Environment 2010 (RQF)

Most of the content of this qualification can be delivered online, due to the limited requirement for practical work.

Unit 2 (2017): Design Production, including sketching and use of CAD: These are practical tasks best taught using direct supervision and learner contact, so may need to be revisited when students return. However, some CAD techniques can be demonstrated online e.g. through screen sharing, if students don't have access to software at home. If students are familiar with using software, and have access to packages such as AutoDesk, AutoCAD, SketchUp at home, then giving students a brief for production of designs using software for electronic submission would be an ideal activity. Youtube videos are also available for developing freehand sketching and rendering techniques, using cardboard for modelling etc. e.g:

Sketching: https://www.youtube.com/playlist?list=UU62Ngsd_ZBWkX-6yFV-10UQ

Modelling: https://www.youtube.com/playlist?list=PL_Xwha1csArbflMdgNt8Q-naXRXFcKFoP



Unit 5 (2017): Health and Safety: 'Carry out the development of a safe system of work for construction operations' would ideally involve visits to real sites so this aspect may need to be revisited when students return, to fully produce a safety survey. Centres may alternatively refer to stimulus material such as videos of real sites. Completion of documentation such as risk assessments and method statements may be done remotely.

Unit 6 (2017: Surveying in Construction: 'Undertake fieldwork surveys' requires direct supervision of learners and access to equipment in order to learn surveying techniques and to prepare and produce surveys for assessment. This will need to be revisited when learners return. Learners can however be encouraged to undertake basic skills such as surviving their own buildings or land using basic measuring techniques. Results could be sent back to centres in a report format, with accompanying photographs for context.

Unit 7 Graphical Detailing: As above, if students are familiar with using software, and have access to packages such as AutoDesk: AutoCAD, Revit, SketchUp at home, then giving students a brief for production of designs using software for electronic submission would be an ideal activity. As above, YouTube videos available, for example https://www.youtube.com/playlist?list=UU62Ngsd_ZBWkX-6yFV-10UQ and https://www.youtube.com/playlist?list=PL_Xwha1csArbflMdgNt8Q-naXRXFcKFoP

Work Experience: Centres are encouraged to continue to engage with employers, for example in case studies or seminar sessions, which can be delivered effectively online, where you are still in contact with employers.

First Award in Construction and the Built Environment

Much of this qualification contains knowledge and theory that can be taught remotely. However, there are some units where practical skills will need to be taught and demonstrated and so centres may need to wait until students return before teaching these. In the practical craft units teaching of learning aim A 'Understand tools, materials and equipment used' can be introduced remotely with stimulus material available from YouTube or elsewhere. Learning Aim B 'develop practical skills' requires supervision and can only be safely taught when students return.



Unit 2: Scientific and Mathematical Applications in Construction Maths: We suggest the use of Authorised Assignment Briefs in particular here, which will give centres a useful opportunity to gauge progress and give feedback on areas of weakness.

Online resources for maths teaching are plentiful, but the following may be of use:

<https://brilliant.org/>

Resources from The Royal Society 'General Mathematical Competencies which focus on contextualisation of teaching maths <https://royalsociety.org/topics-policy/education-skills/mathematics-education/> or similarly and [Stem.org.uk/](https://stem.org.uk/)

Unit 3: Construction and Design

Sketch production may be introduced using appropriate software, via screen sharing. If learners have access to relevant software then briefs could be provided to learners and submitted back to the tutor remotely.

Group activities, e.g. via video hangout or Teams applications or other VLE's (which have the ability to go into separate 'rooms' and reconvene later), could include discussing and reviewing initial concept ideas against the needs of a brief given, evaluating different design solutions in how well they meet client needs.

Centres are probably already making use of online articles, videos and resources. Some further suggestions below:

Introduction to Construction and Design:

https://www.designingbuildings.co.uk/wiki/UK_construction_industry

Introduction to Sustainability:

<https://constructingexcellence.org.uk/wp-content/uploads/2015/02/SUSTAINGUIDE.pdf>



Approaches for remote learning

Our expectation is that centres will continue to provide teaching and learning of as much of the BTEC specification unit content as is possible and carry out teacher based assessments (e.g. worksheets, questions, activities etc) to help prepare learners for the next stage of their journey.



We do not expect learners to complete any formal BTEC Assignment Briefs for BTEC Level 3 Nationals, BTEC Level 1 and 2 Firsts and Tech Awards between mid-March and July.

The table provides some examples of adapted approaches to providing learners with activities that allow for feedback and support continued teaching and learning.

Alternative Remote Learning Approaches	
Assessment Technique	Indicative Alternative Assessment
Case study (physical submission)	Case study (online submission or electronic submission by email)
Discussion forum (in class, verbal)	Virtual meetings (Google class, Microsoft Teams, Zoom, FaceTime, Skype or equivalent platforms)
Discussion forum (written)	Online chat (Google class, Microsoft Teams, Zoom, FaceTime, Skype, VLEs, blogs or equivalent platforms)



Experiment (lab based; face-to-face)	Report on results of the experiment provided by the tutor
Independent research report (physical copy)	Independent research report (online submission or electronic submission by email)
Question and Answer Session	(Google class, Microsoft Teams, Zoom, Skype or equivalent platforms)
Peer review (written, in class)	Peer review report (online submission or electronic submission by email)
Presentation (face-to-face, in class)	Presentation (live via Google class, Microsoft Teams, Zoom, Skype or equivalent platforms) Presentation (recorded online submission or electronic submission by email)
Self-reflection	Self-reflection (online submission or electronic submission by email)
Simulated activity (in class demonstration)	Individual report (online submission or electronic submission by email)
Written task/report (physical submission)	Written task/report (online submission or electronic submission by email)



How to approach research

Students working on research activities requiring primary research may find it challenging in the current climate. However, when used correctly the internet can be a good source for scholarly journals, current news, books, credible magazines, general information and other relevant content to help with research-based activities.



Primary Data Collection

Typically, activities such as interviews, focus groups, observations, etc. would be conducted in a face-to-face environment. Alternative methods to conduct primary research could include:

- Utilising video conferencing software to host focus groups, observations and interviews
- Arranging a phone conversation for direct interviews
- Utilising Live Messaging systems or software such as MS Teams to conduct research amongst peers
- Engaging in email correspondence

Using social media networks to gauge feedback or interest i.e. consumer voice.

Using online surveys is another approach which is relatively simple to set up. Several free online survey tools are readily available to design and send out to wide range of participants. Common survey platforms include:

- **Google Forms** – <http://forms.google.com>
- **SurveyMonkey** - <http://surveymonkey.com>
- **SmartSurvey** - <https://www.smartsurvey.co.uk>



Secondary Data Collection

Where primary data collection may not be possible, or necessary, students may be directed to use secondary research; which can support the original hypothesis being examined. Many online journals offer free access to scholarly articles and peer reviewed journals. To ensure reliability look for reputable sources online. Many reliable statistics, articles and other information can be found on government and educational websites.

In addition, an Internet search for only scholarly information will reveal further sources. Some open access journals which feature topics across several areas are:

- **DOAJ** - <https://doaj.org/>

DOAJ features more than 8,500 open access journals, many of which are sourced from government, commercial, non-profit, and for-profit sources.

- **Oxford Open** - https://academic.oup.com/journals/pages/open_access

Oxford Open's database is comprised of archived content from more than 300 publications. The majority of these journals are fully open access, and the site also provides an array of optional open access entries (articles with publication costs paid by the author) that users may also access free-of-charge.

- **Omics Group** - <https://www.omicsonline.org/open-access-journals-list.php>

More than 300 open-access scientific journals on life sciences, pharmacology, environmental science, management, computer science and engineering.

For a full list of open access journals by subject go to-
<https://www.onlineschools.org/open-access-journals/>

Many professional bodies and professional membership organisations also publish research studies, case studies and information that students may use to support their research. Typically, these sources will be reliable and relevant. Centres are encouraged to ensure that students are aware of the professional bodies and membership organisations that are relevant to their field of study.



How to approach the use of software

Centres are encouraged to provide students with guidance as to suitable free or low-cost software that may be used to undertake work. For example:

- **DraftSight** – Free CAD software (compatible with AutoCAD) (<http://draftsight.com>)
- **Autodesk** provides free software for educators and learners (<https://www.autodesk.com/education/free-software/featured>)
- **SketchUp** - (<https://www.sketchup.com/>)
- **Scribus** – Free digital page layout alternative to InDesign (<https://www.scribus.net>)
- **LibreOffice** – Free word processing, spreadsheets, presentation software (compatible with Microsoft Office) (<http://libreoffice.org>)

There are many free or low-cost alternatives available. Many software vendors provide free versions of software for students. Searching on the Internet will result in extensive lists.

Some large, industry-standard software vendors provide free versions of their software for education. Two of the most common are:

- **Microsoft** – Word, Excel, Powerpoint and other are available for free. (<https://www.microsoft.com/en-us/education/products/office>)