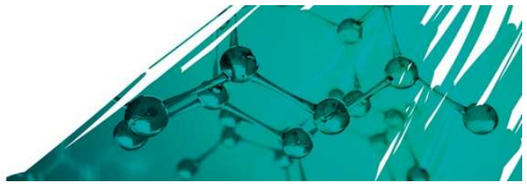


BTEC International Level 3 Subsidiary Diploma (360 GLH) in Applied Science: Sample Delivery Plan

Audience

This document is aimed at supporting tutors and those delivering BTEC International Level 3 qualifications from April 2020.

Introduction

Clear unit planning and understanding of key deadlines are essential for a successful delivery programme. We have produced a sample delivery plan showing how the BTEC Subsidiary Diploma in Applied Science could be delivered over one year, highlighting assessment milestones and indicating where you can teach units holistically.

Key sections

The document focuses on key dates to plan around and an example of how the Subsidiary Diploma can be structured, set out in the three sections below:

Section 1: Guide to key dates

Setting out the key activities and requirements for course delivery alongside dates and links to further information.

Section 2: Sample one-year plan – delivery chart

A chart setting out the key deliverables against chosen units.

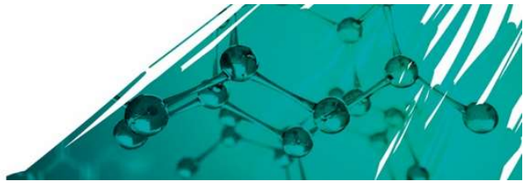
Section 3: Sample one-year plan – detailed rationale

An in-depth rationale and explanation as to how the suggested plan was structured.

Further support can be found within the relevant specification on Pearson's website (https://qualifications.pearson.com/en/qualifications/btec-international-level-3/applied-science.html)

Below is an overview of how wider support also links to this document.

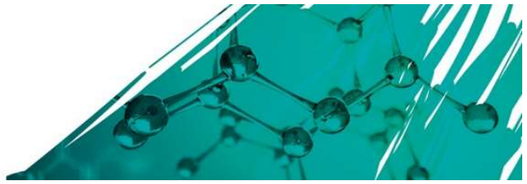
Support	Purpose
Delivery Guides	A companion to your BTEC International Level 3 specification and Authorised Assignment Briefs (AABs) and Sample Pearson Set Assignments. It contains ideas for teaching and learning, including practical activities, realistic scenarios, ways of involving employers in delivery, ways of managing independent learning and how to approach assessments. The aim of these guides is to show how the specification content might work in practice and to inspire you to start thinking about different ways to deliver your course.
Authorised Assignment Briefs	Provides scenarios and teaching plans for each unit, to be used either as they are set out or to inform your own planning.
Schemes of Work	Demonstrates how the unit content can be covered in the GLH while providing lesson ideas and highlighting links to other units to help you plan your teaching.



Section 1: Guide to key dates

Setting out the key activities order and requirements for course delivery alongside links to further information.

Action	Description	Resource/reference
Assessment plan(s)	An assessment plan(s) must be in place to demonstrate that sufficient time is available to deliver and assess all the required units in a timely manner. More than one plan may be required if there are different groups working at different speeds.	Assessment plans are available on the Pearson website. Please note that all units are internally assessed. For a small proportion of units Pearson sets the assignment and these are also internally assessed. Pearson Set Assignments will be available from October of the year of assessment and can be taken at any point in that year.
Assignment briefs	Assignment briefs should be internally verified to ensure they are fit for purpose and the equipment, resources and staff expertise will be available. This is not required for Pearson Set Assignment Units.	Authorised assignment briefs are available at https://qualifications.pearson.com/en/qualifications/btec-international-level-3/applied-science.html.
Learner induction	A short period of induction is strongly recommended to ensure learners are familiar with the programme and its requirements. Plagiarism, referencing, time management skills, the importance of meeting deadlines and centre policies should be covered.	
Register your learners	Learner registrations need to be made by the deadlines on our website. This will trigger the allocation of a Standards Verifier and support for your centre.	Edexcel Online
Allocation of Standards Verifier	The Standards Verifier needs to see the assessment plan(s) and will agree a sampling schedule with the centre. They are available to provide support and guidance.	The details of the Standards Verifier will be emailed to the Quality Nominee at the centre. Please ensure the Quality Nominee details registered with Pearson are accurate.
Internally assessed unit completed	The internally assessed unit(s) needs to have been sampled and reported prior to the end of teaching for the year.	A guide to internal assessments is available at https://qualifications.pearson.com/en/qualifications/btec-international-level-3/applied-science.html.
Second sampling completed	Second sampling of internally assessed units that were not released for certification must be complete by the end of the teaching for the year.	

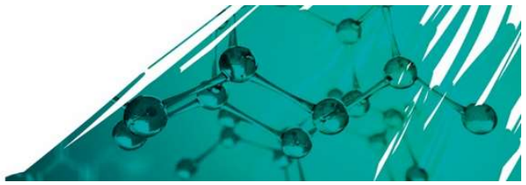


Section 2: Sample one-year plan – delivery chart

This plan is intended to be used as guidance.

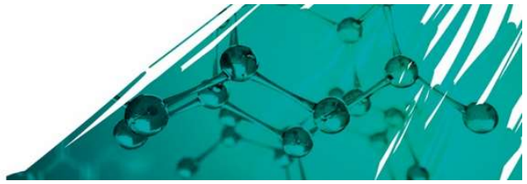
Key
LA = Learning aim
INT = Internal assessment
RS = Revision session
PSA = Pearson Set Assignment

				YEAR 1 TERM 1												
Unit	**Unit title**	**Guided learning hours**	**Assessment method**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
1	**Principles and Applications of Biology I**	**60 GLH**	**Pearson Set Assignment**	**LA A**	**LA A**	**LA A/B**	**LA B**	**LA B/C**	**LA C**	**LA C**	**RS/PSA**	**PSA**	**PSA**			
		6 hours per week 1–10 including 15 hours required for Assessment														
2	**Principles and Applications of Chemistry I**	**60 GLH**	**Pearson Set Assignment**											**LA A**	**LA A/B**	**LA B**
		6 hours per week 11- 20 including 22 hours required for Assessment														
15	**Diseases and Infections**	**60 GLH**	**Internal Assessment**	**LA A**	**LA A**	**LA A**	**INT**	**INT**	**LA B**	**LA B**	**LA B**	**INT**	**INT**	**LA C**	**LA C**	**INT**
		3 hours per week 1–20														



				YEAR 1 TERM 2												
Unit	**Unit title**	**Guided learning hours**	**Assessment method**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**
2	**Principles and Applications of Chemistry I**	**60 GLH**	**Pearson Set Assignment**	**LA C**	**LA C/D**	**LA D**	**RS/PSA**	**PSA**	**PSA**	**PSA**						
		6 hours per week 11–20 including 22 hours required for Assessment														
3	**Principles and Applications of Physics I**	**60 GLH**	**Pearson Set Assignment**								**LA A**	**LA A**	**LA A**	**LA B**	**LA B**	**LA B**
		6 hours per week 21–30 including 16 hours required for Assessment														
15	**Diseases and Infections**	**60 GLH**	**Internal Assessment**	**INT**	**LA D**	**LA D**	**LA D**	**INT**	**INT**	**INT**						
		3 hours per week 1–2O														

				YEAR 1 TERM 3												
Unit	**Unit title**	**Guided learning hours**	**Assessment method**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**
3	**Principles and Applications of Physics I**	**60 GLH**	**Pearson Set Assignment**	**LA B**	**RS/PSA**	**PSA**	**PSA**									
		6 hours per week 21–30 including 16 hours required for Assessment														
14	**Genetics and Genetic Engineering**	**60 GLH**	**Internal Assessment**				**LA A**	**LA A**	**LA A**	**INT**	**LA B**	**LA B**	**INT**	**LA C**	**LA C**	**INT**
		6 hours per week 30 – 39														
19	**Microbiology and Microbiological Techniques**	**60 GLH**	**Internal Assessment**				**LA A/B**	**LA A/B**	**LA A/B**	**INT**	**INT**	**LA C/D**	**LA C/D**	**INT**	**INT**	**INT**
		6 hours per week 30–39														



Section 3: Sample one-year plan – detailed rationale

Overview

The Level 3 Subsidiary Diploma in Applied Science suggests 360 guided learning hours (GLH) and comprises three mandatory units and three optional units. The three mandatory units are internally assessed using a Pearson Set Assignment. The optional units are all internally assessed via centre designed assignments or the Authorised Assignment Briefs.

The qualification structure identifies the mandatory and optional units and this information is also listed in the qualification specification. To achieve any qualification grade, learners must complete and have an outcome (D, M, P or U) for all units within a valid combination for the size of the award. For the Subsidiary Diploma in Applied Science, learners must pass all mandatory units. Learners could attain a U grade in one of the optional units and still achieve a passing grade overall depending on their other results. Please see pages 395–412 of the specification for more details about compensation and grading.

The Sample Delivery Plan is based on the qualification being delivered over 1 year, with lesson times averaging 9 hours per week.

If your centre is subject to Standards Verification, your Standards Verifier will confirm sampling arrangements with you in order to meet the first sampling deadline. The Sample Delivery Plan ensures that all six units will be completed and available for first sampling in the year with time available before the end of the academic year for second sampling and/or a resit for the set assignments, should this be required.

Involving employers in the assessment/delivery

There is no compulsory requirement for a work experience placement within the qualification. All units lend themselves to a range of employer involvement, for example, in the form of an educational visit, guest speaker, focus group or case study.

Which units are assessed by Pearson Set Assignments?

Pearson Set Assignments must be used to assess Units 1, 2 and 3. The set assignments will be available from September. The assignments can be taken at any time in the year. There is no opportunity for a resubmission of evidence. A new Pearson Set Assignment must be used by any student(s) who need to improve their grade. Two set assignments, one for the first attempt and one for a re-sit, if required, are available for each one-year period.

Mandatory units

Unit 1: Principles and Applications of Biology I. Learners will study key concepts in cellular biology, human anatomy and physiology. The Pearson Set Assignment requires a supervised assessment period of 15 hours.

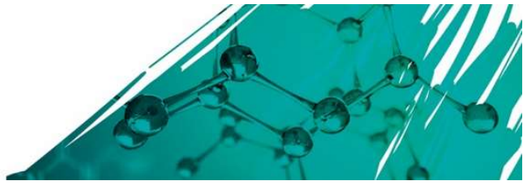
Unit 2: Principles and Applications of Chemistry I. This unit covers some of the key concepts on chemistry, atomic structure, bonding, the Periodic Table and reacting quantities. The Pearson Set Assignment requires a supervised assessment period of 22 hours.

Unit 3: Principles and Applications of Physics I. Some of the key concepts in Physics are the focus of this unit; electromagnetic waves in communication and fundamental aspects of forces and motion in transportation. The Pearson Set Assignment requires a supervised assessment period of 16 hours.

Suggestions for which units to teach in the one year programme.

Units 1, 2 and 3 are mandatory units assessed internally via a Pearson Set Assignment. Learners must achieve a pass in these units to achieve an overall grade for the Applied Science Subsidiary Diploma programme (or as a 'fall back' for the smaller Applied Science Certificate programme) to be awarded. Three optional, internally assessed, units are required for the 360 GLH Subsidiary Diploma programme.

Staff availability, expertise and resources will influence how units are delivered. Units can be delivered 'long and thin' or 'short and fat' as determined by the centre. Both approaches have advantages and disadvantages: 'Long and thin' delivery usually allows a 'specialist' to deliver the unit over the course of the year. This methodology means that learners have to wait a long time before they have completed an assignment and can receive feedback on their actual achievement. It also means that assessment tends to be concentrated at the end of the academic year; 'Short and fat' delivery and assessment means that units are completed in a short time frame, allowing learners to be aware of their actual achievement unit by unit during the year. If there are two or more staff delivering the programme, this methodology may mean that staff have to deliver a unit which may be 'outside their comfort zone'. This can be mitigated by selecting optional units to compliment staff expertise and which can be delivered once the mandatory units have been completed. An optional Biology unit could be selected to follow delivery of Unit 1 Principles and Applications of Biology I. Similarly, a chemistry unit could be delivered following Unit 2 Principles and Applications of Chemistry I and a physics unit could follow Unit 3 Principles and Applications of Physics I.



When selecting optional units, it is important to consider if learners may decide to continue into a second year of study and 'top-up' to a larger programme as some units are not valid for some of the Diploma and Extended Diploma pathways. The Delivery Chart above has selected optional Unit 14 Genetics and Genetic Engineering, Unit 15 Diseases and Infections and Unit 19 Microbiology and Microbiological Techniques as these units are available for all pathways and all sizes of programmes. This will avoid compromising programme choice at a later date. The centre can substitute other units to suit the centre. The number of assignments for Authorised Assignment Briefs varies between two and four. It is, therefore, important to check the number of assignments per unit when planning delivery and assessment and make appropriate adjustments to the timescale for teaching and learning and assessment.

The three mandatory units (1, 2 and 3) have each been allocated six hours a week for ten weeks. Staggering them throughout the year helps to spread out the assessments. It also means the first Pearson Set Assignment can be assessed towards the end of the first term. This will allow all stakeholders to know that standards are being met. In the unlikely event that this is not the case, there is plenty of time for a re-sit. Whilst the Delivery Plan shows Unit 1 Principles and Applications of Biology I being delivered first, followed by Unit 2 and then Unit 3, the units can, of course, be delivered in any order to suit the needs of the centre. There are no Authorised Assignment Briefs for Units 1, 2 and 3. Learners need to be aware of the assessment criteria and understand how they can be met. The Pearson Set Assignment will then be used for formal assessment.

One of the three optional units, Unit 15 Diseases and Infections, has also been allocated three hours a week over twenty weeks. This will allow one optional unit to be available for Standards Verification in the middle of the academic year and spreads the assessment workload on learners. The other two optional units will need to be delivered and assessed when Units 3 and 15 have been completed. Internally assessed units can have a Lead Internal Verified resubmission opportunity, providing the resubmission rules have been met. There is no formal lesson time built into the Delivery Plan for resubmissions.

Unit 15: Diseases and Infections: Learning aims A and B require learners to investigate infectious and non-infectious diseases, their causes, effects on the body and how transmission of infectious diseases can be prevented. Learning aim C concentrates on environmental pollution, its causes, effects on human health and methods of reducing pollution. Learning aim D requires an understanding of the defence mechanisms of the human body. There is no requirement for assessment of practical work for this unit, but learners will undoubtedly benefit from opportunities to carry out practical work, for example, modelling the transmission of disease and links can be made with Unit 19 Microbiology and Microbiological Techniques.

Unit 19: Microbiology and Microbiological Techniques. There is a maximum of two assessment opportunities for this unit, learning aims A and B are funnelled, as are learning aims C and D. Practical work on microscopy is required for learning aim B which must be assessed with learning aim A, the importance of microbial structure and classification. There are opportunities to link microscopy work for this unit with Unit 15 Diseases and Infections. Learning aim C requires learners to undertake aseptic techniques to culture microorganisms. For learning aim D, learners must carry out investigations to explore factors controlling microbial growth. Laboratory time and equipment for assessment as well as teaching and learning will need to be available to learners. Careful time management will be required and holidays must be considered when the unit is being timetabled.

Unit 14: Genetics and Genetic Engineering. Learning aims A and B require learners to understand the structure and function of nucleic acids, the process of cell division and its role in genetic variation. Practical work is required for assessment for learning aim B and practice and guidance will be required during teaching and learning to allow learners to develop the necessary microscopy skills. There is opportunity to link with Unit 19 Microbiology and Microbiological Techniques which also requires microscopy skills. Learning aim C requires practical work to carry out investigations to collect and record data for mono and dihybrid ratios. Whilst the Delivery Plan shows a linear progression through the learning aims, it may be necessary to provide time during learning aim A or B for learners to start breeding programmes using, for example, Drosophila. The centre could consider running leaning aim C long and thin alongside A and B to facilitate this. The ordering of equipment and livestock will need to be considered.

All unit content must be delivered and assessment must not commence until the tutor is satisfied that learners have acquired all the skills, knowledge and understanding they will need for assessment. Learners need to understand their responsibilities for assessment and the centre's arrangements. It is important that learners understand how assignments are used, the importance of meeting assignment deadlines and that all the work submitted for assessment must be their own.

NB: internally assessed units can only be sampled when all learners have completed the unit, resubmissions have occurred and been assessed and internally verified. All units must be available for first sampling and reporting to have occurred **at the appropriate deadline** in the year of certification.