



# BTEC Level 3 National Foundation Diploma in Forensic Investigation (510 GLH): sample one year delivery plan

## Audience

This document is aimed at supporting teachers, tutors and those delivering BTEC Level 3 National Foundation Diploma in Forensic Investigation qualification over one year.

## Introduction

Clear unit planning and understanding of key deadlines are essential for a successful delivery programme. This sample delivery plan shows how the BTEC Foundation Diploma in Forensic Investigation 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 a Foundation 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 the Pearson website (<http://qualifications.pearson.com/en/qualifications/btec-nationals/forensics-and-criminal-investigation-2017.html>).



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

<b>Support</b>	<b>Purpose</b>
Delivery Guides	A companion to your BTEC Level 3 National specifications, authorised assignment briefs (AABs) and Sample Assessment Materials (SAMs). 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	Provide 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	Demonstrate 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.
Sample Assessment Materials	Examples of how an externally assessed unit may be presented, with an accompanying mark scheme. These Sample Assessment Materials have been developed to support this qualification and will be used as the benchmark to develop the assessment learners will take. These cover both examinations and externally assessed tasks.



## Section 1: Guide to key dates

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

Date	Action	Description	Resource/reference
August–October	OSCA (Online Support for Centre Assessors)	Centres need to register a Lead Internal Verifier (LIV) for each principal BTEC subject area. The LIV must download the OSCA materials and use them to standardise the assessment and delivery team for the programme.	Edexcel Online. Your Exams Officer can provide a LogIn. BTEC Centre Guide for LIVs is available <a href="#">here</a>
August/September	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 <a href="#">here</a>
August/September	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.	Authorised assignment briefs are available <a href="#">here</a>
September	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, importance of meeting deadlines and centre policies should be covered.	
October	Register your learners	Learner registrations need to be made by 31st October. This will trigger the allocation of a Standards Verifier and support for your centre.	Edexcel Online
October	External assessment entries	Unit 1 External assessment entries – January sitting	Edexcel Online



October	Unit 3 equipment list release	The equipment list for Unit 3, January sitting, released to allow centres to prepare equipment for Part A of this externally assessed unit	BTEC website
October	External assessment entries	Unit 3 External assessment entries – January sitting	ICEA document is available <a href="#">here</a>
December – February	Allocation of Standards Verifier	The Standards Verifier should cover QCF and NQF programmes. They will need to see the assessment plan(s) and will agree a sampling schedule with you. 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.
January	Unit 3	Unit 3 External assessment – January sitting	ICEA document is available <a href="#">here</a>
January	Unit 1	Unit 1 External assessment – January sitting	ICEA document is available <a href="#">here</a>
March	Unit 3 equipment list release	The equipment list for Unit 3, May sitting, released to allow centres to prepare equipment for Part A of this externally assessed unit	BTEC website? Exams Officer?
March	External assessment entries	Unit 1 External assessment entries – May/June sitting	Edexcel Online
March	External assessment entries	Unit 3 External assessment entries – April/May sitting	Edexcel Online
April/May	Unit 3	Unit 3 External assessment – April/May sitting	ICEA document is available <a href="#">here</a>



Mid May–30th May	Internally assessed unit completed	Internally assessed unit(s) needs to have been sampled and reported by 30th May.	A guide to Standards is available <a href="#">here</a>
May/June	Unit 1	Unit 1 External assessment – May/June sitting	ICEA document is available <a href="#">here</a>
30th June	Second sampling completed	Second sampling of internally assessed units that were not released for certification must be complete.	
5th July	Certification claims made	The final date for certification claims to be made via Edexcel online.	



## Section 2: Sample one year plan – delivery chart

This plan is intended to be used as guidance.

### Key

R = Revision for external assessment

EXT = External assessment

SA = Summative assessment

LA = Learning aim

### BTEC Level 3 National Foundation Diploma in Forensic Investigation (510 GLH)

It is important to note from the outset that this is a suggested 'Delivery Plan', designed to help structure the delivery of the unit content, as well as planning assessment. This is by no means a definitive or a prescribed document. Pearson recognises that each and every centre will want to stamp their mark on delivery and will want to teach to the strengths of resourcing, including both physical resources and human resources.

Centres are also encouraged to select optional units that will meet the local needs and reflect employability and/or progression to higher education, relevant to location.

### Key

R = Revision for external assessment

EX = External assessment

SA = Summative assessment

The Level 3 National Foundation Diploma in Forensic Investigation has 510 guided learning hours (GLH), and consists of six units of which four are mandatory and two (units 1 and 3) are externally assessed. Units 1, 2 and 3 are common to the BTEC National Applied Science programme. Unit 4 Forensic Investigation Procedures in Practice, is specific to the Forensic and Criminal Investigation programme and is mandatory.

Learners must complete two optional units from a group of six, which have been designed to support progression to a range of sector-related courses in higher education and to link with relevant occupational areas. The optional units offer breadth and depth of topic areas that are relevant to the Forensic Investigation sector. Units 8, 10 and 11 are common to the BTEC National Applied Science programme.

*Unit 1: Principles and Applications of Science I:* Learners are expected to learn and show their understanding of the core science concepts. This unit will be assessed through a written exam worth 90 marks, which is set and marked by Pearson. The exam will last two hours. The paper is split into three sections, each worth 30 marks: Biology, Chemistry and Physics. They can be attempted in any order. This is a written submission.

*Unit 3: Science Investigation Skills:* Learners will cover the stages involved and the skills needed in planning a scientific investigation: how to record, interpret, draw scientific conclusions and evaluate. Part A requires learners to carry out an



investigation task set by Pearson and completed under supervised conditions. Part A is given to learners 8 days before Part B is scheduled. Part A is undertaken in a supervised single session of 3 hours. Part B is a set task that is undertaken in a supervised 1.5 hour session, timetabled by Pearson.

It is essential that a Level 3 curriculum allow learners the opportunity to develop a solid foundation of skills and knowledge at the same time as facilitating the development of specialist skills that represent the diverse needs of the forensic science industry. The optional units in this example delivery plan have been selected to give learners a diverse and broad curriculum and will allow for successful transition into the workplace or higher education.

The suggested delivery plan delays introducing unit 4 Forensic Investigation Procedures in Practice until after the first half term. This type of delivery model will allow centres to give learners an intense initial period of development to secure essential key learning. The suggested timing of units also allows realistic assessment and synergy across units.

There is no mandatory requirement for a work experience placement within the qualification, but learners will significantly benefit from access to local employers when completing units. It would be beneficial for an industry representative to explain, e.g. the importance of the routine calibration of equipment in ensuring the reliability of results. A visit to a local laboratory would reinforce the importance of calibration of equipment and health and safety. Even if the local organisations that use science only operate on a small scale, their representatives will be able to reinforce the importance of the transferable skills this unit develops.

To deliver BTEC programmes, centres need to be an approved centre. It is important that learners have access to facilities and equipment to carry out practical scientific work for demonstration, practice and assessment. Centres are required to annually reaffirm that adequate human and physical resources are available to deliver and assess the programme.



**TEACHING**

The delivery plan below contains the four mandatory units and units 9 and 10 from the six optional units (these can be substituted dependent on the needs and facilities available at the centre).

An induction period is strongly recommended. This should include details about the assessment process (exam, tasks and internal assessment), how to carry out research and reference sources. Learners must be made aware of the need to present independent, valid and authentic evidence to meet deadlines. Malpractice and appeals policies must be discussed with learners.

The first few weeks should allow learners to develop an essential 'tool kit' of skills and knowledge from across the mandatory units 1, 2 and 3. Learners require opportunities to practice and acquire skills and knowledge to support assessment and build a strong foundation of basic skills associated with forensic investigation. Ensuring mandatory units are completed early is good practice and will allow learners to claim certification for BTEC Applied Science National Certificate if all units for Forensic and Criminal Investigation are not completed.

Centres are encouraged to draw from industry practice, industry protocols and case studies as much as possible. The development of transferable employability skills is critical for the long-term development of learners.

Year 1		Term 1															
Unit	Unit title	GLH	Hou rs per wee k	Assessm ent method	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Principles and Applications of Science I	90	3	External													
2	Practical Scientific Procedures and Techniques	90	3	Internal							SA 1				SA 2		
3	Science Investigation Skills	120	4	External													



4	Forensic Investigation Procedures in Practice	90	3	Internal													SA 1
9	Environmental Forensics	60	2	Internal													
10	Forensic Fire Investigation	60	2	Internal										SA 1			

Year 1		Term 2														
Unit	Unit title	GLH	Hours per week	Assessment method	14	15	16	17	18	19	20	21	22	23	24	25
1	Principles and Applications of Science I	90	3	External	R	R	EXT									
2	Practical Scientific Procedures and Techniques	90	3	Internal	SA 3				SA 4							
3	Science Investigation Skills	120	4	External	R	EXT	EXT								R	R
4	Forensic Investigation Procedures in Practice	90	3	Internal						SA 2				SA 3		
9	Environmental Forensics	60	2	Internal		SA 1						SA 2				
10	Forensic Fire Investigation	60	2	Internal							SA 2					



Year 1		Term 3														
Unit	Unit title	GLH	Hours per week	Assessment method	26	27	28	29	30	31	32	33				
1	Principles and Applications of Science I	90	3	External		R	R	R	R	EXT						
2	Practical Scientific Procedures and Techniques	90	3	Internal												
3	Science Investigation Skills	120	4	External	R	EXT	EXT									
4	Forensic Investigation Procedures in Practice	90	3	Internal												
9	Environmental Forensics	60	2	Internal			SA 3									
10	Forensic Fire Investigation	60	2	Internal	SA 3											



## Section 3: Sample one year plan – detailed rationale

### Overview

This is a suggested one year plan for the **BTEC National Foundation Diploma in Forensic Investigation** (GLH) qualification with 510 GLH. This equates to 16.5 hours of activities per week involving contact with tutors during the academic year to the end of May (31/32 weeks) when all internally assessed units must be available for sampling and reporting. The Unit 1 examination is the end of May in 2018. Learners will require up to an additional 140 hours of time (approximately 4.5 hours a week) to undertake preparatory reading, revision and independent research to complete their assessments. This will meet the recommended Total Qualification Time of 650 hours for the programme.

Centres need to consider how units should be delivered, 'long and thin' or 'short and fat.' There is no definitive answer. Often centres chose to deliver all units long and thin as this allows different assessors to have responsibility for a unit(s) for the year. This has inherent drawbacks, mainly that no unit will be available for early sampling to provide feedback and assurance to the centre that standards are being met. It also means that assessment is 'end loaded' and there may be little time for resubmissions or remedial work if national standards are not met.

Delivering units short and fat allows learners to focus and concentrate on a unit and get feedback on their overall progress early. It means assessors need to be available longer each week to be able to have 'responsibility' for a complete unit. It is possible for a different assessor to deliver and assess a different learning aim within a unit. It is important to remember that once an internally assessed unit has been completed assessors can then deliver another unit or concentrate on the externally assessed units.

Some units are more suited to 'long and thin' delivery and assessment, for instance Unit 9 Environmental Forensics. Unit 4 would probably benefit from being delivered and assessed 'short and fat' for learning aims A and B as learners need to investigate a simulated crime scene and then analyse results. This would be best carried out whilst fresh in the mind of the learner. Learning aim C can be delivered and assessed at a later date, independently from the first two learning aims.

Centres may wish to consider delivering Unit 2 learning aim D concurrently with learning aims A, B and C. This would allow learners to compile a skills analysis as they work through the techniques in the unit and then complete the assignment for learning aim D. Delivering unit 2 early and having it sampled as soon as the centre is allocated a Standards Verifier is good practice.

A holistic and flexible approach to Staffing is a key element in ensuring all units can be delivered in a timely manner. Often staff divide time equally between the units they are delivering each week. Staff might be better deployed working in teams across two or three units.



### **Involving employers in the assessment/delivery**

There is no mandatory requirement for a work experience placement within the qualification. Access to local employers through site visits, guest speakers or case studies would help learners understand the unit content in vocational settings.

### **Which units are assessed externally?**

There are two externally assessed units – Units 1 and 3. Dates will be timetabled by Pearson, twice a year for each unit.

**Unit 1** – This unit will be assessed through a written examination worth 90 marks, which is set and marked by Pearson.

**Unit 3** – Parts A and B are taken over nine days. Part A is released on day 1 and completed in one 3 hour session between day 1 and day 8. Part B is taken on day 9 in one 2 hour supervised session, timetabled by Pearson. Results are collected from learners after Part A and handed back to them for Part B.

Wherever possible, it is recommended that content for Unit 1 and 3 should be integrated and delivered as part of other units. This is particularly important for unit 3 where learners are being assessed on practical ability and their knowledge and understanding of experimental design and results analysis. Hypothesising, planning, recording, processing and analysing/evaluating results and techniques can be delivered and practiced in many practical situations for other units.

### **Internally-assessed units**

Four units are assessed internally and subject to external standards verification. Centres set assignments and assess learner work providing a final summative assessment of each assignment. The work is then subject to standards verification.

You will need to prepare to assess using the guidance in Section 6 of the specification. Authorised Assignment Briefs (AABs) are available on the BTEC website and provide a valid assessment methodology. These can be amended, in line with the requirements and guidance for internal assessment. It is good practice to ensure that learners are assessed using a variety of styles to help them develop a broad range of transferable skills. Learners could be given opportunities to:

- write up the findings of their own research
- use case studies to explore complex or unfamiliar situations
- carry out projects for which they have choice over the direction and outcomes
- demonstrate practical and technical skills using appropriate equipment.

Assessors must make assessment decisions against the assessment criteria, guidance and relevant unit content. Learners can be assessed once for each assessment criterion once. A resubmission opportunity is available providing the resubmission rules have been met. Resubmissions must be authorised by the Lead Internal Verifier.

NB: internally assessed units can only be sampled when all learners have completed the unit, resubmissions have occurred and been assessed and internally verified.



### Suggestions for which units to teach during the year

Centres are required to produce an assessment plan at the beginning of the year. This is a working document and is subject to change but should identify all units for the duration of the programme.

When creating the assessment plan, centres will need to consider if learners will have an assessment opportunity for units 1 and/or 3 in January, allowing a resit opportunity later in the year, if required. There is no easy or definitive answer to this issue. Whilst attempting these units in January allows a resit, learners will be less experienced, and time will need to be spent delivering all the unit content to ensure learners are fully prepared for assessment. This will reduce time available for the internally assessed units. Unit 3 will also draw on content from units 1 and 2 so these need to have been covered to allow learners the best opportunity for success. Learners need to be encouraged to 'get it right first time.' If learners have only been entered for the summer series external assessments for units 1 and 3 and fail, they can resit in the January series of the next year.

A compromise may be to allow opportunity for unit 1 in January with a resit in May/June and only enter learners for assessment for unit 3 in April/May. This will ensure learners will have covered all relevant units prior to assessment. Intensive work for unit 1 can be carried out as each internally assessed unit is completed and delivery and assessment time for these units is no longer required.

The suggested delivery plan ensures that:

- Assessments are spaced throughout the year to avoid excessive workloads for learners or assessors.
- Opportunities for external assessments are shown.
- All internally assessed units will be completed and available for standards verification to have been carried out by the 30<sup>th</sup> May in the year of certification.

It is important that the teaching and learning cover all the unit content and that learners are fully prepared for the assessments with appropriate revision time being made available before the external assessments.

Centres are encouraged to timetable a period of induction for learners at the start of the programme. This should include information on topics such as the structure of the units, how to use an assignment brief, importance of command words, how to work to meet deadlines, consequences of not meeting deadlines, how to reference work and the importance of evidence submitted for assessment being independently produced, valid and authentic. Centre policies on malpractice and plagiarism should be explained.

Pearson has provided a set of *Skills for Learning and Work* activity sheets you may wish to use during induction.