



Teaching Science
at Level 3?

Choose BTEC Nationals





Welcome to your Guide to BTEC Level 3 Nationals in:

⦿ **Applied Science**

⦿ **Forensic and Criminal Investigation**

Your guide includes everything you need to know about BTEC Level 3 Nationals Science qualifications, why universities and employers are so excited about BTEC qualifications, and why **around 1 in 4 students entering university in the UK do so with a BTEC.***

*Source: UCAS Progression Pathways – Jan 2016

The skills to succeed – the confidence to progress

Contents

Introducing BTEC Level 3 Nationals

Why choose BTEC Nationals?	4–5
The route to success	6–7

Explore your BTEC Level 3 Nationals

Your qualifications explained	8–9
Overview of courses:	
Applied Science	10–11
Forensic and Criminal Investigation	12–13

Teaching BTEC Level 3 Nationals

Course materials	14–15
Published resources	16–17
myBTEC	18
Training	19
Delivering BTEC	20–21

Assessing BTEC Level 3 Nationals

Assessment	22
Grading	23

BTEC for Levels 1 and 2

BTEC Level 1 Introductory	24
BTEC Level 2 Technicals	25

Why choose BTEC Nationals?

Young people taking their first steps towards a new career need the right blend of **technical and academic skills** in order to become the highly skilled, work-ready individuals employers and universities look for.

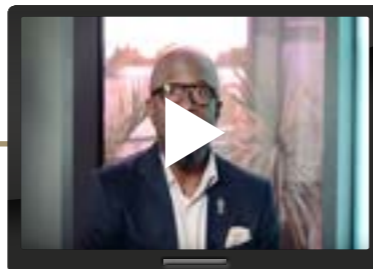
BTEC Level 3 Nationals are vocational qualifications designed to help your learners succeed. They have been developed in collaboration with over 5,000 universities, employers and professional bodies with **employability at the heart**, so your learners can develop the skills and confidence they will need to step into their future.

Why universities choose BTEC



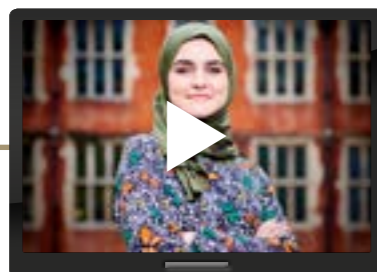
quals.pearson.com/BTECprogress17Guide

Why employers choose BTEC



quals.pearson.com/BTECprogress17Guide

Why students choose BTEC



quals.pearson.com/BTECprogress17Guide

What's new

Your new BTEC Level 3 Nationals qualifications take a unit-by-unit approach and provide you learners with practical, work-related courses. They offer:

Combination of assessment styles

Learners can demonstrate their knowledge, skills and understanding through work-related contexts. (see page 22 for details).

Large foundation of mandatory units

Universities and employers have evidence of a consistent level of core knowledge and skills.

Comprehensive support

We've listened to feedback and put together our most comprehensive support package yet. (see pages 14–21 for details).

The skills to succeed – the confidence to progress



The route to success

After 30 years of proven success, more and more employers and Higher Education institutions across the world are choosing BTEC-qualified candidates for their **practical knowledge** and **employability skills**.

More than a million learners choose BTEC each year.

BTEC Level 3 Nationals in Science sectors offer your learners:

- ① **Work-related learning**, giving learners an edge and opening the door to higher education or employment in science and related sectors.
- ② **Clear progression routes** into higher education when taken alongside other courses, an apprenticeship or training routes in the science sectors.
- ③ **Transferable skills development** such as independent research and study skills.

The skills to succeed – the confidence to progress

“BTEC courses give you real, hands-on experience. It’s what I call ‘learning by doing’ and gives you the skills today’s employers are looking for.”

*Peter Jones CBE,
Entrepreneur*



Find out why **Peter Jones** and our other **ambassadors** choose BTEC at **quals.pearson.com/BTECsuccess17guide**.

See some great BTEC success stories and meet our **BTEC Science student** of the Year 2017 at: **quals.pearson.com/BTECawards17guide**



Did you know...

4 out of 5 BTEC students go on to receive a **First or Second class degree**

(The outcomes associated with the BTEC route of degree level acquisition, London Economics 2013)

37% of businesses prefer recruits to hold a mix of academic and vocational qualifications or value them equally

(Inspiring Growth: Pearson/Skills CBI Skills survey 2015)

Your BTEC Nationals Science qualifications explained

BTEC Level 3 Nationals Science courses offer a flexible range of qualifications that can be studied alongside other level 3 qualifications such as A levels or other BTEC Nationals as part of a larger programme of study, or as the main focus of study.

- ⦿ They are designed for Post-16 Level 3 learners wishing to go on to further or higher level study of the sector or directly to employment.
- ⦿ All sizes attract **UCAS points** and are widely recognised by universities and employers.

The following qualifications are available for your learners:



Applied Science



Forensic and Criminal Investigation

Find out more

The following pages provide you with an overview of each course. For full details or to download your specifications please go to quals.pearson.com/BTECNats16and17Guide

Your BTEC Level 3 Science qualifications are available in a range of sizes and are **Applied General-style** qualifications.

Applied General qualifications

For learners progressing to their career through higher level study, although they could go directly into employment at the end of the course. They will have the opportunity to:

- ⦿ **choose between different qualification sizes** so they have the option to study full or part-time or take a BTEC alongside other level 3 qualifications such as A levels
- ⦿ develop **transferable knowledge and skills.**

The skills to succeed – the confidence to progress



Applied Science

Your BTEC Level 3 Nationals in Applied Science are Applied General-style qualifications and provide:

- **flexibility** for your students to progress to larger-size qualifications or specialise
- opportunity for students to showcase their skills through **practical assessments**
- the **underpinning knowledge and skills** needed to meet industry requirements

Applied General

Certificate 180 GLH	Extended Certificate 360 GLH	Foundation Diploma 510 GLH	Diploma 720 GLH	Extended Diploma 1080 GLH
Same size as 0.5 A level Applied General	Same size as 1 A level Applied General	Same size as 1.5 A levels Applied General	Same size as 2 A levels Applied General	Same size as 3 A levels Applied General
Total units: 2 2 Mandatory Units	Total units: 4 3 Mandatory Units PLUS 1 Optional Unit*	Total units: 6 4 Mandatory Units PLUS 2 Optional Units*	Total units: 8 6 Mandatory Units PLUS 2 Optional Units*	Total units: 13 7 Mandatory Units PLUS 6 Optional Units*
Purpose: ○ Supports progression to higher education when taken as part of a programme of study that includes other vocational or general qualifications.	Purpose: ○ Supports progression to higher education courses. ○ To be taken as part of a programme of study that includes other appropriate qualifications.	Purpose: ○ Designed as a 1 year, full-time course, or as part of a 2 year, full-time study program which support progression to higher education courses.	Purpose: ○ Designed to be the substantive part of a 16–19 study program. ○ Supports progression to higher education courses.	Purpose: ○ Designed as a 2 year, full-time course. ○ Supports progression to higher education courses.

Included in performance measures in England – see website for full details

*please see specification for details of all Optional Units available.
Information correct at time of publication – please see specification for latest information.

Find out more
For **Teaching support** see page 14 • For **Assessment** see page 22
Download your **specification** at: quals.pearson.com/BTECNatsAPS16Guide

The skills to succeed – the confidence to progress



Forensic and Criminal Investigation

The chart below gives you an overview of your Forensic and Criminal Investigation qualifications.

	Foundation Diploma 510 GLH	Diploma 720 GLH	Extended Diploma 1080 GLH
Applied General	Same size as 1.5 A levels Applied General	Same size as 2 A levels Applied General	Same size as 3 A levels Applied General
	Total units: 6 4 Mandatory Units PLUS 2 Optional Units*	Total units: 8 6 Mandatory Units PLUS 2 Optional Units*	Total units: 13 7 Mandatory Units PLUS 6 Optional Units*
	Purpose: <ul style="list-style-type: none"> Designed as a 1 year, full-time course of study, or as part of a 2 year, full-time study program which supports progression to higher education when taken alongside other qualifications. 	Purpose: <ul style="list-style-type: none"> Designed to be the substantive part of a 16–19 study program. Supports progression to higher education when taken alongside other qualifications. 	Purpose: <ul style="list-style-type: none"> Designed as a 2 year, full-time course. Supports progression to higher education courses.

*please see specification for details of all Optional Units available.

Information correct at time of publication – please see specification for latest information.

The skills to succeed – the confidence to progress

The forensic and criminology sector is diverse and wide-ranging including, for example, forensic science, forensic and criminal psychology and forensic criminology.

There is a wide range of occupations for graduate entry including forensic laboratories, the police force and the probation service.

Your BTEC Level 3 Nationals in Forensic and Criminal Investigation are Applied General-style qualifications and provide:

- flexibility for your students to progress to larger-size qualifications or specialise
- opportunity for students to showcase their skills through **practical assessments**
- the **underpinning knowledge and skills** needed to meet industry requirements

Find out more

For **Teaching support** see page 14 • For **Assessment** see page 22

Download your **specification** at: quals.pearson.com/BTECNatsFC16Guide



Course materials

BTEC Level 3 Nationals in Science have a comprehensive range of FREE course materials available to help with **planning and teaching**, as well as **assessing and tracking** progress of your learners.

Find out more

For full details of all the support available please see website:



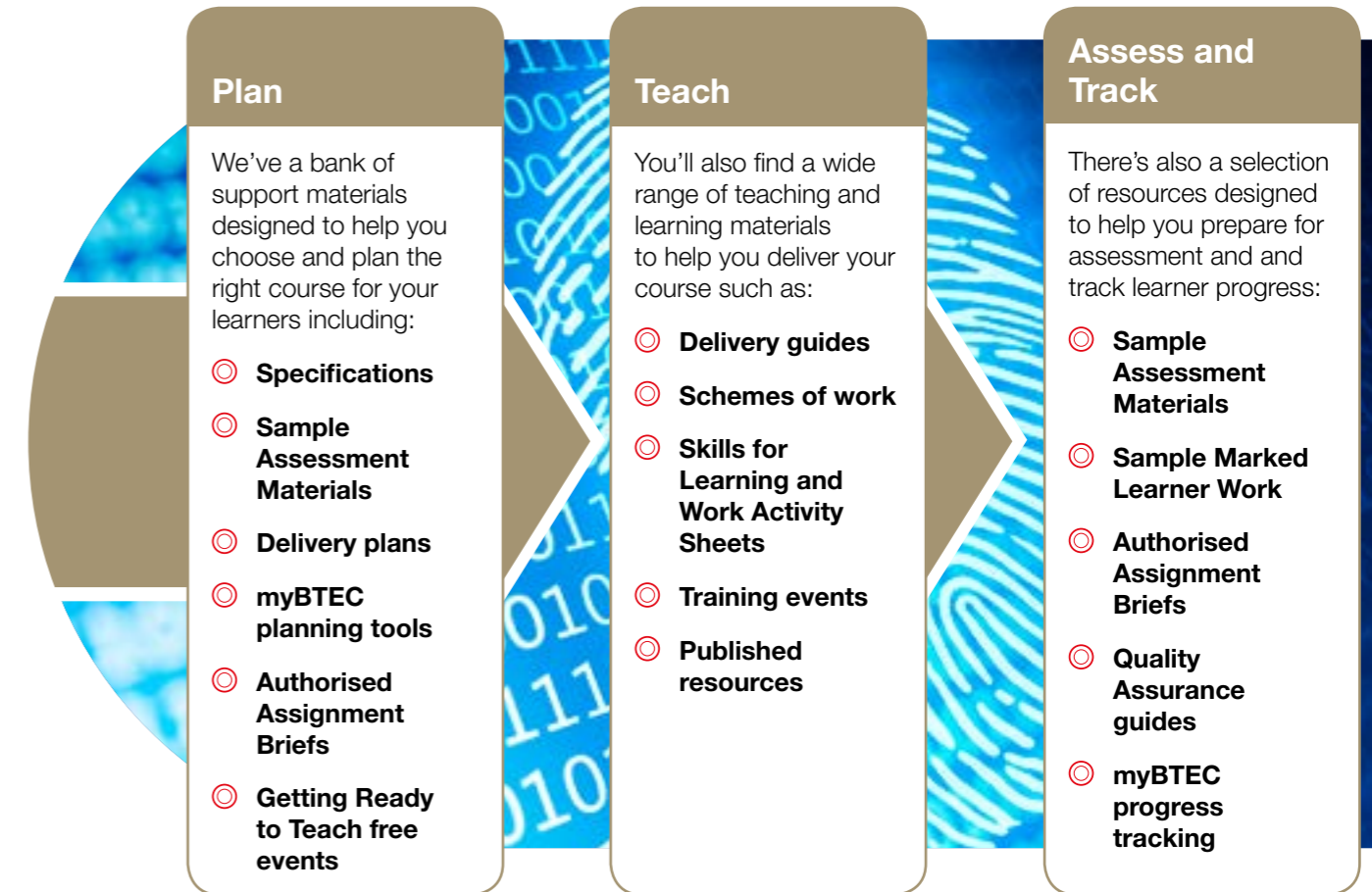
Applied Science:

quals.pearson.com/BTECNatsAPS16Guide



Forensic and Criminal Investigation:

quals.pearson.com/BTECNatsFC16Guide



Find out more

- See page 19 for full details about free training events
- Download your specifications at: quals.pearson.com/BTECNats16and17Guide

Published resources (paid-for)

We know it can be time-consuming and tricky to create lessons that work for each of your students, stretching the more able and supporting lower ability. That's why our resources are built around established pedagogical principles, to give your students targeted support and help them improve their understanding and progress.

This pedagogy runs through the:

Student Book: features throughout help learners to build knowledge, understand how to excel in assessment, reflect and evaluate learning, and link their learning to real-life workplace scenarios

Teaching Pack: additional front-of-class support, with all materials differentiated to suit each of your learners.

Applied Science Student books 1 and 2 with ActiveBook

- ⦿ Help learners develop and apply principles and practical knowledge.
- ⦿ Include preparation for assessment.
- ⦿ Encourage self-evaluation.
- ⦿ Accompanied by an ActiveBook (online versions of the Student Books).

You do not need to purchase resources in order to deliver these qualifications.

Resources built around learning principles you can trust



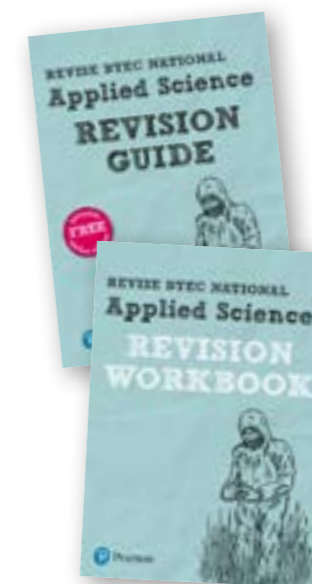
Applied Science Teaching packs (via ActiveLearn Digital Service)

ActiveLearn
Digital Service

- ⦿ Include online versions of each student book.
- ⦿ Provide continuous support through planning and delivery.
- ⦿ Include interactive activities, presentations and tools to structure lessons.
- ⦿ Delivered through our **ActiveLearn Digital Service** at www.pearsonfe.co.uk/ALDS.

Applied Science Revision guides and workbooks

- ⦿ Help learners prepare for external assessment
- ⦿ Revision Guide for classroom or independent study
- ⦿ Revision Workbook to help learners to test their own knowledge and skills



Find out more
Download sample units and order evaluation copies
at www.pearsonfe.co.uk/BTECNatsAPS16Guide



MyBTEC

We know that as a teacher workload can be an issue, that's why to help you save time we have designed myBTEC, a unique free service that aims to reduce your admin workload.

What myBTEC can do for you:

- ⦿ **Saves you time** – for example when Internally Verifying an assignment brief, at least 50% of the questions are answered for you.
- ⦿ **Reduces your workload** – for example your assessment plan is produced automatically from your assignment briefs in myBTEC.
- ⦿ **Automatic grade tracking calculations**, so you know your students are on track.
- ⦿ **Easily export and download all documents**, information and results.
- ⦿ **Give you the complete visibility of all courses**, assessment, internal verification and results at your centre, so you can check progress at anytime.

Simply login at mybtec.pearson.com with your Edexcel online details.

Find out more
Discover myBTEC at
quals.pearson.com/myBTECNatsGuide17

The skills to succeed – the confidence to progress

Training

We offer a range of events to help you in every aspect of planning, teaching and assessing your BTEC courses.

To make it as easy as possible for you to benefit from our training, many of our **face-to-face** events are available as **online sessions**, and you can request any of our events to be delivered as paid-for events in your centre.

Our programme of events:

- ⦿ make it easy for you to access BTEC training **how, when and where** you need it
- ⦿ offer **qualification-based** and **role-based** courses so you can choose which event is right for you
- ⦿ are **delivered by experts** passionate about training
- ⦿ provide opportunities to **share ideas and best practice**

What's more, our flexible range of high quality training events not only support your delivery of BTEC courses, but also help towards your **continued professional development**.

Find out more

Book onto one of our events at quals.pearson.com/BTECNatsTraining





Admin support

New to BTEC?

If you're thinking about teaching BTEC Nationals and want to know more about what's involved and the support we can provide see our step-by-step guides at quals.pearson.com/stepbystepBTEC.

We've included guidance on:

- How to get started
- Building your BTEC team
- Quality assurance
- Internals assessment
- External assessment

Already teaching BTEC?

Remember you can find detailed information about key BTEC processes, forms and guidance materials quals.pearson.com/BTECsupport.

You'll also find all of the essential tools and forms on each of our dedicated qualifications pages, alongside your specifications and any additional resources specific to your BTEC.

Specialist help and advice

You've also access to specialist support and advice from our Science subject advisors, Stephen Nugus and Irine Muhiuddin.

Stephen will be happy to help with any questions you may have about your BTEC Level 3 Science qualifications.

Stephen Nugus and Irine Muhiuddin

Science

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Find out More

For full details visit quals.pearson.com/BTECNats16&17guide

The skills to succeed – the confidence to progress

Assessment and Grading

Types of assessment

Your BTEC Level 3 Nationals Science qualifications take a unit-by-unit approach and offer a combination of assessment styles.

This gives your learners the opportunity to showcase their skills and apply their knowledge in an appropriate, work-related context, and provides evidence of what they can do when they apply to enter higher education or employment.

Assignments (internally assessed)	Tasks (externally assessed)	Written Exams (externally assessed)
<p>Set and marked by: Centre Verified by: Pearson</p> <p>Assignments are practical tasks set in work-related scenarios that can be tailored to local industry needs for your learners. Learners demonstrate how they apply knowledge and skills to complete a practical project over a period of time, working individually or in groups.</p>	<p>Set and marked by: Pearson</p> <p>Tasks are practical work-related scenarios completed in realistic, time-based situations. They are completed in controlled conditions and some tasks have pre-released information. Learners demonstrate how to apply learning to common workplace or HE scenarios. Tasks provide evidence of a consistent standard of assessment for all BTEC learners.</p>	<p>Set and marked by: Pearson</p> <p>For written exams, learners draw on essential information to create written answers to practical questions in exam conditions. Learners demonstrate they can apply appropriate knowledge to a work-related challenge in timed conditions.</p>

Grading

A learner's final qualification grade reflects their achievements across units in their BTEC Nationals course.

Both internally and externally assessed units are individually graded, and each final unit grade is allocated points.

- Internally assessed units are marked and graded in the Centre (school, college or training provider) and subject to external verification by Pearson.
- Externally assessed units are marked and graded by Pearson.
- Units are graded Pass, Merit or Distinction, with external units also having a N grade in most Level 3 sectors. Total points scored across all units are used to calculate the final qualification grade.

	GLH	Type (Int/Ext)	Grade	Unit points
Unit 1	90	Int	Distinction	24
Unit 2	90	Ext	Merit	22
Totals	180		D	46

Achievement of a Certificate with a D grade example

Find out more

For full details see Section 9 of your specification

Download your specification at
quals.pearson.com/BTECNats16and17Guide

We've also developed a range of new BTEC Science qualifications for Level 1 and Level 2 learners.



For Level 1 post-16 Learners

BTEC Level 1 Introductory qualifications

Graded, unit-based qualifications designed to develop transferable and sector skills so your **post-16 learners** can progress to further study, apprenticeships or training. BTEC Level 1 Introductory qualifications for Science sectors include:

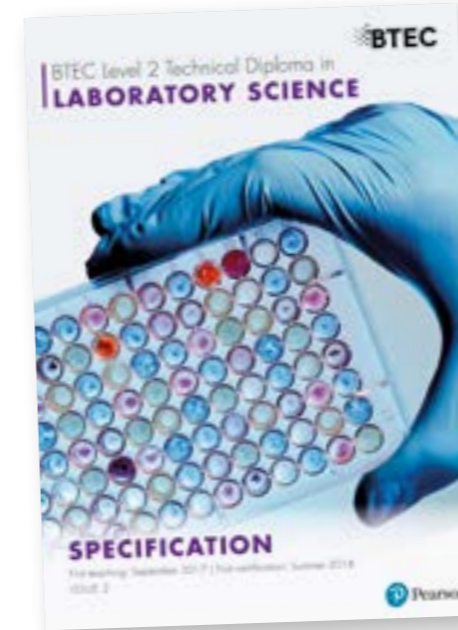
Applied Science

Vocational Studies

Find out more

Download your specifications at:

quals.pearson.com/BTECL1IntroGuide



For Level 2 post-16 learners

BTEC Level 2 Technicals

Designed to give **post-16 learners** real hands-on practical experience to master the skills they will need to succeed in their career or higher level study. Qualifications for Science sectors include:

Laboratory Science

Find out more

Download your specifications and view all our BTEC Level 2 Technicals at:

quals.pearson.com/BTECL2TechnicalGuide

Your next Steps

1. Download your specifications and sample assessment materials and browse our FREE resources at:
quals.pearson.com/BTECNats16and17Guide
2. Order your paid-for resources at:
www.pearsonfe.co.uk/BTECNatsAPS16Guide

Stay in touch

Sign up for updates at quals.pearson.com/BTECNats16UpdateGuide and we'll keep you up-to-date with the latest news.



Follow us on Twitter

@teachBTEC

#ichooseBTEC

Help and advice

For help and advice about teaching your new qualifications contact our Subject Advisors for Science:

Stephen Nugus and Irine Muhiuddin

Science



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