

BTEC Level 3 National in Animal Management with Science: Comparing unit content between 2010 and 2016 qualifications

Introduction

This document is designed to help you with mapping unit content as you transition from BTEC Nationals (2010) qualifications to the new BTEC Nationals (2016).

Our guidance is broken down into two sections:

Section 1: How and where can I use existing content, and what new content has been included?

Highlighting comparable content with the BTEC National (2010) and how closely this maps across to the BTEC Level 3 Nationals (2016).

Section 2: What do these changes mean for planning and teaching?

Review of key changes in language, outlining which units are externally assessed and when, and where to find further support.

Further support can be found within the relevant specification on our website ([here](#)).

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

Support	Purpose
Delivery Plans	Examples of how to structure and deliver different size qualifications over a one or two year period, including when to prepare learners for external assessment.
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.
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 students will take. This covers either an exam or task.
Sample Marked Learner Work	Indicative example of learner work, which has been assessed accurately to national standards.

Section 1: How and where can I use the existing content?

Headlines

Whilst there are less units available on the 2016 qualification, the areas of study are very similar albeit restructured. Units are either 60, 90 or 120GLH. The majority are 60GLH and the 90GLH and 120GLH are all mandatory units.

At a glance ● Exact match ○ Partial match

		BTEC Level 3 2016 units																									
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BTEC Level 3 2010 units	1					○																			○		
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In more detail

The tables below compares the relevant content of the new BTEC Level 3 National in Animal Management (2016) against the content of the current BTEC Level 3 National in Animal Management (2010).

The mapping focuses on mandatory units and provides greater detail of where content is the same as the existing (2010) specifications, and also where content is partially covered.

2016	2010
Unit 1: Animal Breeding and Genetics	
Comments/Details: This new unit is a mandatory unit for the extended diploma (1080 GLH) pathway only. It is externally assessed and has direct links with units 13, 28 and 32 QCF	
Learning Aim A: Examine the principles and practices of breeding captive animals to maximise success	
A1 Reproductive strategies A2 Construction of breeding programmes A3 Animal evaluation	Partially covered in: <ul style="list-style-type: none"> • Unit 13: Learning Outcome 1: Understand behaviour patterns in animals • Unit 13: Learning Outcome 4: Understand animal communication
Learning Aim B: Investigate management practices of breeding and young animals and how they contribute to successful breeding management	
B1 Selection of breeding stock B2 Assessment and evaluation of males, females and young animals B3 Management of breeding stock B4 Conception and parturition B5 Care plans B6 Implementation of care plans, monitoring and recording progress of the offspring's first 24–48 hours of life and development to weaning or adulthood B7 Management of offspring from birth to weaning, monitoring progress of offspring, recording systems, supportive measures B8 Legislative requirements for breeding animals B9 Common problems	Fully covered in: <ul style="list-style-type: none"> • Unit 32: Learning Outcome 2: Understand the uses of reproductive technology • Unit 32: Learning Outcome 3: Know how to manage young animals • Unit 32: Learning Outcome 4: Understand the uses of reproductive technology

Learning Aim C: Examine how the principles of genetics and genetic manipulation advance animal breeding in captive animal populations

<p>C1 Reproductive technologies</p> <p>C2 Mendelian genetics</p> <p>C3 Gene interactions</p> <p>C4 Gene mutation and evolution of mutation rate</p> <p>C5 Spontaneous and induced mutations</p> <p>C6 Mating implications</p> <p>C7 Techniques</p> <p>C8 Stages in the process of genetic modification, plasmids and the insertion process</p> <p>C9 Applications</p> <p>C10 Livestock improvement for production</p> <p>C11 Genetic manipulation evaluation</p> <p>C12 Animal ethics</p>	<p>Partially covered in:</p> <ul style="list-style-type: none"> • Unit 28 Learning Outcome 1: Understand the molecular basis of inheritance • Unit 28 Learning Outcome 2: Understand the principles of Mendelian genetics • Unit 28 Learning Outcome 3: Understand the principles of population genetic • Unit 28 Learning Outcome 4: Know the principles of genetic manipulation • Unit 32: Learning Outcome 1: Understand the principles of inheritance • Unit 32: Learning Outcome 4: Understand the uses of reproductive technology
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2016	2010
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Unit 2: Animal Biology

Comments/Details:
 This new unit is a mandatory unit for the foundation diploma (540GLH), diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is externally assessed and has direct links with units 2, 3, 10, 14, 26 and 28 from the 2010 qualification.

Learning Aim A: Understand how body systems in birds and mammals in good health should function, in order to maintain high levels of animal welfare

<p>A1 Musculoskeletal and integumentary systems: structure, functions, processes and adaptations</p> <p>A2 Digestive system: structure, function, processes, adaptations and disorders</p> <p>A3 Nervous system: structure, function, processes, adaptations and disorders</p> <p>A4 Circulatory and respiratory systems: structure, functions, processes and adaptations</p> <p>A5 Reproductive system structure, hormonal control and adaptations</p> <p>A6 Excretory system: structure, function, processes and adaptations</p> <p>A7 Thermoregulatory system: structure,</p>	<p>Partially covered in:</p> <ul style="list-style-type: none"> • Unit 2: Learning Outcome 3: Know the structure and function of animal skeletal systems • Unit 3: Learning Outcome 1: Know the structure and functions of biological systems in animals • Unit 3: Learning Outcome 2: Know animal reproductive processes • Unit 3: Learning Outcome 3: Understand the biological control mechanisms in animals • Unit 10: Learning Outcome 1: Understand the functions of the main components of an animal's diet • Unit 32: Learning Outcome 1: Understand the principles of inheritance
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mechanisms, control and disorders	
Learning Aim B: Understand how cells and tissues contribute to the normal functioning of body systems in animals	
<p>B1 Cellular ultrastructure</p> <p>B2 How cells are studied</p> <p>B3 Cellular control and transport</p> <p>B4 Structure, function and locations of the main animal tissue types</p>	<p>Fully covered in:</p> <ul style="list-style-type: none"> Unit 2: Learning Outcome 1: Know the functions of the main animal cell organelle Unit 2 Learning Outcome 2: Understand the structure and function of the main animal tissue types Unit 26 Learning Outcome 2: Be able to use the correct equipment to identify structures and functions in different types of cells
Learning Aim C: Know how living organisms can be classified in order to understand their evolutionary relationships	
<p>C1 Adaptations</p> <p>C2 Use of modern technologies in classification</p> <p>C3 Taxonomy</p>	<p>Partially covered in:</p> <ul style="list-style-type: none"> Unit 3 Learning Outcome 4: Understand how an animal's body structure and systems are adapted to its environment Unit 14 Learning Outcome 1: Understand animal evolution and the development of domestic breeds Unit 28 Learning Outcome 3: Understand the principles of population genetic

2016	2010
Unit 3: Animal Welfare and Ethics	
Comments/Details: This new unit is a mandatory unit for all pathways. It is externally assessed and has links with unit 14 QCF	
Learning Aim A: Ethical issues in animal welfare	
<p>A1 Ethical approaches</p> <p>A2 Ethical issues and legislation in the animal industry</p>	<p>Partially covered in:</p> <ul style="list-style-type: none"> Unit 14: Learning Outcome 2: Understand the roles of animals in human society Unit 14: Learning Outcome 3: Know current UK animal welfare legislation
Learning Aim B: Welfare appraisals for assessing the health and wellbeing of animals	
<p>B1 Acceptable conditions for animal health and welfare</p> <p>B2 Animal welfare appraisals</p>	

2016	2010
Unit 4: Practical Animal Handling	
Comments/Details: This new unit is a mandatory unit for all pathways. It is externally assessed and has direct links with unit 4, 5 and 6 QCF	
Learning Aim A: Explore safe animal handling techniques for different animals and situations	
A1 Working safely with animals A2 Handling, moving and restraining animals	Fully covered in: <ul style="list-style-type: none"> • Unit 4: Learning Outcome 1: Be able to handle and restrain animals • Unit 4: Learning Outcome 2: Be able to move animals • Unit 4: Learning Outcome 4: Understand how to work safely with animals
Learning Aim B: Explore the preparation and maintenance of accommodation and environments to meet the needs of different animals	
B1 Types of accommodation and construction materials B2 Assessment of accommodation and environment B3 Maintenance of animal accommodation	Fully covered in: <ul style="list-style-type: none"> • Unit 6: Learning Outcome 1: Know how to plan the accommodation of animals • Unit 6 Learning Outcome 2: Be able to prepare and maintain accommodation for animals • Unit 6 Learning Outcome 3: Be able to monitor and evaluate accommodation for animals.
Learning Aim C: Undertake animal husbandry practices to support the health and welfare of animals	
C1 Feeding and watering animals C2 Grooming and bathing needs C3 Providing opportunities for exercise C4 Health checks	Partially covered in: <ul style="list-style-type: none"> • Unit 5 Learning Outcome 1: Be able to plan diets and feeding regimes for animals • Unit 5 Learning Outcome 2: Be able to monitor the feeding of animals • Unit 5 Learning Outcome 3: Understand the planning and monitoring of animal feeding regimes.

2016	2010
Unit 5: Animal Behaviour	
Comments/Details: This new unit is a mandatory unit for all pathways. It is internally assessed and has direct links with units 13 and 29 QCF	
Learning Aim A: Explore the ways in which animals learn normal and abnormal behaviours, and how these behaviours can be managed	
A1 Learning theory A2 Development of abnormal behaviours A3 Managing abnormal behaviours	Partially covered in: <ul style="list-style-type: none"> Unit 13: Learning Outcome 3: Understand the factors influencing behaviour Unit 29: Learning Outcome 1: Be able to assess animal behaviour
Learning Aim B: Examine behaviour patterns and their influencing factors in animals	
B1 Animal lifestyles B2 Animal communication B3 Factors influencing behaviour	Fully covered in: <ul style="list-style-type: none"> Unit 13: Learning Outcome 1: Understand behaviour patterns in animals Unit 13 Learning Outcome 3: Understand the factors influencing behaviour Unit 13 Learning Outcome 4: Understand animal communication
Learning Aim C: Undertake animal behaviour monitoring as a measure of animal welfare	
C1 Interpreting animal behaviour C2 Observing animal behaviour	Partially covered in: <ul style="list-style-type: none"> Unit 13 Learning Outcome 4: Understand animal communication

2016	2010
Unit 6: Animal Health and Disease	
Comments/Details: This new unit is a mandatory unit for all pathways. It is internally assessed and has direct links with units 1, 10 and 16 QCF	
Learning Aim A: Understand the growth and reproduction of pathogens, parasites and how organisms defend against disease	
A1 Structure and reproduction of bacteria, viruses, fungi and parasites A2 Routes of transmission A3 Effects caused by pathogens and parasites A4 Defence against disease	Partially covered in: <ul style="list-style-type: none"> Unit 16 Learning Outcome 4: Understand the growth and reproduction of bacteria, viruses and fungi

Learning Aim B: Undertake health assessments to promote and maintain animal health and welfare and to treat and prevent common diseases and disorders	
B1 Assessing general health in animals B2 Common diseases in animals and their clinical signs, treatments and prevention B3 Common disorders in domestic animals	Fully covered in: <ul style="list-style-type: none"> Unit 1: Learning Outcome 1: Be able to recognise indicators of health in animals Unit 1 Learning Outcome 2: Understand common diseases and disorders, their treatment and prevention Unit 10 Learning Outcome 4: Know common animal nutritional problems
Learning Aim C: Demonstrate preventative health strategies by assessing, recording and monitoring health in animals.	
C1 Preventative health strategies C2 Theory and administration of basic animal treatments C3 Preventative health assessment, recording and monitoring	Fully covered in: <ul style="list-style-type: none"> Unit 1 Learning Outcome 2: Understand common diseases and disorders, their treatment and prevention Unit 1 Learning Outcome 3: Know how to deliver and record basic animal treatment

2016	2010
Unit 7: Work Experience in the Animal Sector	
Comments/Details: This new unit is a mandatory unit for all pathways. It is internally assessed and has direct links with unit 8 QCF	
Learning Aim A: Investigate employment opportunities in the animal sector to target future progression	
A1 Progression opportunities A2 Requirements for progression A3 Relevant legislation for work placement opportunities	Fully covered in: <ul style="list-style-type: none"> Unit 8: Learning Outcome 1: Understand the opportunities in the environmental and land-based industries
Learning Aim B: Develop communication and interview skills to improve employment prospects	
B1 Applying for work-related activities B2 Interview skills	Fully covered in: <ul style="list-style-type: none"> Unit 8: Learning Outcome 2: Be able to prepare for a work-based experience in the environmental and land-based industry
Learning Aim C: Complete work-related experience in the animal sector to contribute to personal and professional development	

<p>C1 Practical work-related experience</p> <p>C2 Customer relations</p> <p>C3 Reflecting on workplace practice</p>	<p>Partially covered in:</p> <ul style="list-style-type: none"> Unit 8 Learning Outcome 3: Be able to undertake a work-based experience in the environmental and land-based industry Unit 8 Learning Outcome 4: Be able to review a work-based experience in the environmental and land-based sector.
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2016	2010
Unit 8: Investigative research project	
Comments/Details:	
<p>This new unit is a mandatory unit for the diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is internally assessed and has direct links with units 7 and 26 QCF</p>	
Learning Aim A: Understand the methodologies and processes available when conducting a research project in the animal sector	
<p>A1 Research methodology</p> <p>A2 Investigative project processes</p>	<p>Partially covered in:</p> <ul style="list-style-type: none"> Unit 26: Learning Outcome 4: Be able to communicate scientific information
Learning Aim B: Carry out a small-scale research project investigating an aspect of animal management	
<p>B1 Planning for an animal management project</p> <p>B2 Carry out an animal management project</p> <p>B3 Monitor an animal management project</p> <p>B4 Report and present the project outcomes in an appropriate format</p>	<p>Fully covered in:</p> <ul style="list-style-type: none"> Unit 7: Learning Outcome 2: Be able to identify and research a suitable topic for an investigative project in the environmental and land-based sector Unit 7 Learning Outcome 2: Be able to plan for an investigative project in the environmental and land-based sector Unit 7 Learning Outcome 3: Be able to carry out an investigative project in the environmental and land-based sector Unit 7 Learning Outcome 4: Be able to report on an investigative project in the environmental and land-based sector. Unit 26 Learning Outcome 4: Be able to communicate scientific information
Learning Aim C: Review the effectiveness of the research project in meeting its stated aims	
<p>C1 Review the project</p>	<p>Partially covered in:</p> <ul style="list-style-type: none"> Unit 7 Learning Outcome 4: Be able to report on an investigative project in the environmental and land-based sector.

2016	2010
Unit 9: Practical Skills in Animal Science	
Comments/Details: This new unit is a mandatory unit for the extended diploma pathway only (1080GLH). It is internally assessed and has direct links with units 16, 26, 27 and 30 QCF	
Learning Aim A: Understand how to plan, record and communicate findings of scientific investigations in animal science	
A1 Preparation for investigating phenomena in animal science A2 Recording and analysis of data A3 Scientific communication methods for different audiences	Partially covered in: <ul style="list-style-type: none"> • Unit 26: Learning Outcome 1: Be able to use the necessary skills to measure quantities for chemical reactions • Unit 26: Learning Outcome 4: Be able to communicate scientific information • Unit 30: Learning Outcome 1: Be able to use the necessary skills to safely measure quantities for chemical reactions
Learning Aim B: Explore the skills to work safely with micro-organisms in order to carry out investigations in bacterial growth	
B1 Preparation for microbiological experimentation B2 Practical isolation and culture of bacteria	Partially covered in: <ul style="list-style-type: none"> • Unit 16: Learning Outcome 3: Understand enzyme kinetics • Unit 26: Learning Outcome 2: Be able to use the correct equipment to identify structures and functions in different types of cells
Learning Aim C: Explore the skills necessary to work safely with chemicals to carry out experiments.	
C1 Theoretical background for experimentation in animal science C2 Investigating biochemical phenomena in animal science	Partially covered in: <ul style="list-style-type: none"> • Unit 26: Learning Outcome 3: Be able to investigate different types of energy and their transfers • Unit 27: Learning Outcome 2: Be able to show how rates of reaction are affected by varying the reaction conditions • Unit 27: Learning Outcome 3: Be able to interpret key features of equilibrium processes • Unit 27: Learning Outcome 4: Be able to demonstrate the structure and properties of simple organic molecules • Unit 30: Learning Outcome 2: Understand the effect of environmental conditions on rates of reaction

2016	2010
Unit 10: Animal Metabolism	
Comments/Details: This new unit is a mandatory unit for the extended diploma pathway only (1080 GLH). It is internally assessed and has direct links with units 16, 26 and 30 QCF	
Learning Aim A: Understand atomic structure and bonding in order to establish the basis of biochemical reactions	
A1 The structure of atoms and the formation of ions A2 Bonding and forces of attraction	Partially covered in: <ul style="list-style-type: none"> • Unit 16: Learning Outcome 1: Know the principles of biochemistry in relation to cellular structure and function • Unit 26: Learning Outcome 1: Be able to use the necessary skills to measure quantities for chemical reactions • Unit 30: Learning Outcome 2: Understand the effect of environmental conditions on rates of reaction
Learning Aim B: Explore factors affecting reactions in order to understand how biochemical reactions take place inside the animal body	
B1 Rates of reaction B2 Equilibria B3 Enzymes as biological catalysts	Fully covered in: <ul style="list-style-type: none"> • Unit 27: Learning Outcome 1: Be able to relate enthalpy changes to the bonding in a range of substances • Unit 27 Learning Outcome 2: Be able to show how rates of reaction are affected by varying the reaction conditions • Unit 27 Learning Outcome 3: Be able to interpret key features of equilibrium processes • Unit 30: Learning Outcome 1: Be able to use the necessary skills to safely measure quantities for chemical reactions • Unit 30: Learning Outcome 3: Understand the relationship between molecular bonding and enthalpy changes • Unit 30: Learning Outcome 4: Be able to interpret key features of equilibrium processes in fluid states
Learning Aim C: Understand the production of adenosine triphosphate in cellular respiration for animals to utilise energy	
C1 Aerobic respiration C2 Anaerobic respiration	Partially covered in: <ul style="list-style-type: none"> • Unit 16 Learning Outcome 3: Understand the production of adenosine triphosphate from glucose by aerobic and anaerobic respiration

C3 Other respiratory substrates	
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2016	2010
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Unit 11: Advanced Animal Nutrition	
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Comments/Details: This new unit is an optional unit for the foundation diploma (540GLH), diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is internally assessed and has links with units 10, 16 and 30 QCF	
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Learning Aim A: Understand the biochemical basis of biological molecules and their contribution to nutritional requirements in animal	
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<p>A1 Standard representation of biological molecules</p> <p>A2 Biochemical concepts</p>	<p>Partially covered in:</p> <ul style="list-style-type: none"> Unit 16: Learning Outcome 1: Know the principles of biochemistry in relation to cellular structure and function Unit 30: Learning Outcome 3: Understand the relationship between molecular bonding and enthalpy changes
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Learning Aim B: Understand the structure of organic and inorganic molecules and their roles in animal biology and nutritional requirement	
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<p>B1 Carbohydrates (saccharides)</p> <p>B2 Dietary fibre (non-starch polysaccharides)</p> <p>B3 Lipids</p> <p>B4 Amino acids</p> <p>B5 Proteins</p> <p>B6 Water</p> <p>B7 Micronutrients</p>	<p>Fully covered in:</p> <ul style="list-style-type: none"> Unit 10: Learning Outcome 1: Understand the functions of the main components of an animal's diet Unit 16: Learning Outcome 1: Know the principles of biochemistry in relation to cellular structure and function
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Learning Aim C: Explore the feeding requirements of animals in order to ensure correct diet formulation	
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<p>C1 Nutrient analysis of feed</p> <p>C2 Individual animal nutritional requirements</p> <p>C3 Factors affecting feeding and preparation of feedstuffs</p>	<p>Partially covered in:</p> <ul style="list-style-type: none"> Unit 10 Learning Outcome 2: Understand the nutritional values and properties of different food types Unit 10 Learning Outcome 3: Understand the feeding requirements of animals to ensure they receive a balanced diet
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2016	2010
Unit 12: Business Management in the Animal Sector	
Comments/Details: This new unit is an optional unit for the foundation diploma (540GLH), diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is internally assessed and has direct links with unit 9 QCF	
Learning Aim A: Understand the range and purposes of businesses operating in the animal sector	
A1 Types of animal sector businesses A2 Associated animal sector businesses A3 Benefits and impacts of associated animal sector businesses	Fully covered in: <ul style="list-style-type: none"> Unit 9: Learning Outcome 1: Know the breadth and importance of an industry in the environmental and land-based sector Unit 9: Learning Outcome 3: Understand the business marketplace
Learning Aim B: Investigate physical and human resources required to operate animal sector businesses	
B1 Physical resource requirements for an animal sector business B2 Human resource structures B3 Job roles and responsibilities B4 People management	Fully covered in: <ul style="list-style-type: none"> Unit 9: Learning Outcome 2: Understand business resources and structures
Learning Aim C: Explore record-keeping systems to measure the success of an animal sector business	
C1 Financial records C2 Staff development records C3 Physical records	Fully covered in: <ul style="list-style-type: none"> Unit 9 Learning Outcome 4: Understand how to use financial and physical record keeping systems

2016	2010
Unit 13: Animal Management in a Retail Environment	
Comments/Details: This new unit is an optional unit for the foundation diploma (540GLH), diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is externally assessed and has direct links with units 12 and 15 QCF	
Learning Aim A: Explore store layout designs in relation to animal husbandry needs and the needs of animal retail businesses	

A1 Concepts of animal retail design and layout A2 Factors affecting the location of stock A3 Husbandry measures and requirements to meet animal needs A4 Law and legislation	Partially covered in: <ul style="list-style-type: none"> Unit 12: Learning Outcome 1: Understand how to display items for sale Unit 15: Learning Outcome 2: Understand the husbandry requirements of animals sold in pet stores
Learning Aim B: Investigate the management of livestock and non-livestock to meet the needs of animal retail businesses	
B1 Management of livestock B2 Management of non-livestock	Fully covered in: <ul style="list-style-type: none"> Unit 15: Learning Outcome 2: Know the sources of livestock and non-livestock products found in a pet store
Learning Aim C: Explore local marketing and promotional methods that raise the profile of animal retail businesses	
C1 Local marketing methods C2 Promotional methods	Partially covered in: <ul style="list-style-type: none"> Unit 12: Learning Outcome 3: Understand methods of promotion and marketing Unit 15: Learning Outcome 4: Understand the importance of marketing for a pet store

2016	2010
Unit 14: Animals in Boarding Establishments	
Comments/Details: This new unit is an optional unit for the foundation diploma (540GLH), diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is internally assessed and has direct links with unit 22 QCF	
Learning Aim A: Understand types and purposes of animal boarding establishments and their role in supporting animal welfare	
A1 Types and purposes of animal boarding establishments A2 Licensing, legislation and regulation	Partially covered in: <ul style="list-style-type: none"> Unit 22: Learning Outcome 1: Understand different designs and facilities of kennels and catteries
Learning Aim B: Investigate management and husbandry practices relating to animal boarding establishments	
B1 Management procedures B2 Husbandry planning	Partially covered in: <ul style="list-style-type: none"> Unit 22: Learning Outcome 1: Understand different designs and facilities of kennels and catteries Unit 22: Learning Outcome 2: Be able to admit animals to a kennel or cattery and follow administrative procedures

Learning Aim C: Undertake the design and layout of animal boarding establishments to maintain animal welfare and human safety	
C1 Animal Welfare C2 General Management	Partially covered in: <ul style="list-style-type: none"> Unit 22 Learning Outcome 3: Be able to carry out animal husbandry and specialist animal management techniques in a kennel or cattery

2016	2010
Unit 16: Animals Grooming	
Comments/Details: This new unit is an optional unit for the foundation diploma (540GLH), diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is internally assessed and has direct links with unit 23 QCF	
Learning Aim A: Understand the grooming requirements of animals with different needs	
A1 Types of coat and their grooming requirements A2 Restraint equipment and methods of handling A3 Record-keeping requirements	
Learning Aim B: Carry out pre-grooming activities to maintain animals' coats, feet, pads, claws and ears	
B1 Pre-grooming assessment B2 Maintaining animals' feet, pads, claws and ears	Fully covered in: <ul style="list-style-type: none"> Unit 23: Learning Outcome 1: Be able to prepare dogs for styling Unit 23: Learning Outcome 4: Be able to trim dog paws and pads
Learning Aim C: Carry out the safe bathing and grooming of animals to meet welfare needs and grooming requirements	
C1 Bathing and drying animals C2 Grooming and styling animals C3 Maintaining grooming equipment	Partially covered in: <ul style="list-style-type: none"> Unit 23 Learning Outcome 3: Be able to remove excess coat by electrical and non-electrical equipment Unit 23 Learning Outcome 2: Understand the use of grooming equipment and maintenance requirements

2016	2010
Unit 17: Principles of Animal Nursing	
Comments/Details: This new unit is an optional unit for the foundation diploma (540GLH), diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is externally assessed and has direct links with units 11 QCF	
Learning Aim A: Understand the staff roles and operational procedures required in a successful veterinary practice	
A1 Governing bodies and legislation A2 Organisational structure A3 Operational practices	Partially covered in: <ul style="list-style-type: none"> Unit 11: Learning Outcome 2: Understand veterinary practice procedures and equipment
Learning Aim B: Investigate veterinary nursing methods, procedures and resources necessary to provide patient care	
B1 Nursing methods for medical case B2 Nursing methods for surgical cases B3 Nursing methods for infectious disease case	Partially covered in: <ul style="list-style-type: none"> Unit 11: Learning Outcome 1: Be able to care for an in-patient Unit 1 Learning Outcome 2: Understand veterinary practice procedures and equipment
Learning Aim C: Explore rehabilitation methods and procedures used to promote the recovery of animal patients	
C1 Complementary therapies for the animal patient C2 Procedures used to promote the recovery of animal patients	

2016	2010
Unit 18: Aquatic Animal Health and Husbandry	
Comments/Details: This new unit is an optional unit for the foundation diploma (540GLH), diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is externally assessed and has direct links with unit 17 QCF	
Learning Aim A: Examine the biology and associated diseases of aquatic species in order to manage their health and welfare	
A1 Commonly kept species of fish A2 Anatomy of fish A3 Breeding strategies A4 Fish health and disease prevention	Fully covered in: <ul style="list-style-type: none"> Unit 17: Learning Outcome 1: Understand commonly kept fish species and aspects of their biology Unit 17: Learning Outcome 4: Know the main fish diseases and causes of ill health

Learning Aim B: Investigate foods and feeding techniques for aquatic species to meet dietary requirements	
B1 Diets and feeding B2 Feeding mechanisms	Fully covered in: <ul style="list-style-type: none"> Unit 17: Learning Outcome 2: Understand foods and feeding techniques for aquatic species
Learning Aim C: Establish and maintain aquatic systems to meet the environment and welfare needs of captive aquatic species	
C1 Aquatic systems C2 Maintenance of systems C3 Health and safety	Fully covered in: <ul style="list-style-type: none"> Unit 17: Learning Outcome 3: Understand how to develop and maintain aquatic system

2016	2010
Unit 19: Farm Livestock Husbandry	
Comments/Details: This new unit is an optional unit for the foundation diploma (540GLH), diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is internally assessed and has direct links with unit 21 QCF	
Learning Aim A: Understand the production systems used for farm livestock in the UK	
A1 Farm livestock types and breeds A2 Production systems	Fully covered in: <ul style="list-style-type: none"> Unit 21 Learning Outcome 1: Understand the production systems for farm livestock
Learning Aim B: Explore the nutritional needs of farm livestock in order to maintain good standards of health	
B1 Nutrition for farm livestock B2 Feeding and watering regimes and equipment B3 Feed ration formulation	Partially covered in: <ul style="list-style-type: none"> Unit 21 Learning Outcome 4: Understand the feed and water requirements of farm livestock
Learning Aim C: Carry out handling and routine husbandry of farm livestock to meet current standards	
C1 Health and safety requirements when working with farm livestock C2 Animal health checks prior to handling common specie C3 Practical animal handling techniques and	Fully covered in: <ul style="list-style-type: none"> Unit 21 Learning Outcome 2: Be able to carry out handling techniques for farm livestock Unit 21 Learning Outcome 3: Understand the environmental conditions required for farm livestock

equipment for common farm livestock species	
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2016	2010
Unit 20: Human and Animal Interaction	
Comments/Details: This new unit is an optional unit for the foundation diploma (540GLH), diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is externally assessed and has direct links with units 14 and 29 QCF	
Learning Aim A: Examine the relationship between humans and animals, and the role of animals in human society	
A1 Human attitudes towards animals A2 The uses of animals in human society A3 The human–animal bond	Partially covered in: <ul style="list-style-type: none">Unit 14: Learning Outcome 2: Understand the roles of animals in human society
Learning Aim B: Understand the use of training aids in an animal training programme	
B1 Animal temperament and psychology B2 Training aids	Fully covered in: <ul style="list-style-type: none">Unit 29: Learning Outcome 1: Be able to assess animal behaviourUnit 29 Learning Outcome 2: Know how to apply training aids within a training programme
Learning Aim C: Undertake an animal training programme, using the principles of learning theory to achieve simple training goals	
C1 Training goals C2 Training plans C3 Monitoring progress	Fully covered in: <ul style="list-style-type: none">Unit 29: Learning Outcome 3: Be able to train an animalUnit 29: Learning Outcome 4: Understand the success of animal training programmes

2016	2010
Unit 21: Exotic Animal Husbandry	
Comments/Details: This new unit is an optional unit for the foundation diploma (540GLH), diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is internally assessed and has direct links with unit 18 QCF	
Learning Aim A: Understand the implications of keeping exotic animals in the UK	
A1 Exotic animals in the UK A2 Regulatory bodies, legislation and codes of practice	Partially covered in: <ul style="list-style-type: none">Unit 18: Learning Outcome 1: Understand the health and welfare requirements and associated legislation of exotic animal species
Learning Aim B: Understand the environmental needs of exotic animals to maintain their	

health and welfare	
B1 Natural environments B2 Artificial environments B3 Health and welfare issues	
Learning Aim C: Undertake the husbandry needs of different exotic animals in order to maintain their health and welfare	
C1 Handling and restraint C2 Management of accommodation C3 Feeding and watering regimes	Fully covered in: <ul style="list-style-type: none"> Unit 18 Learning Outcome 3: Be able to prepare accommodation and feeding regimes for exotic animal species Unit 18 Learning Outcome 4: Be able to handle, restrain and transport exotic animal species

2016	2010
Unit 22: Practical Estate Planning, Construction and Maintenance	
Comments/Details: This new unit is an optional unit for the foundation diploma (540GLH), diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is internally assessed and has direct links with unit 24 QCF	
Learning Aim A: Understand the nature and scope of estate planning, construction and maintenance for animal management	
A1 The nature and scope of estate skills for animal management A2 The nature and scope of estate skills for animal management	Partially covered in: <ul style="list-style-type: none"> Unit 24 Learning Outcome 1: Be able to construct, repair or maintain boundaries Unit 24 Learning Outcome 2: Be able to construct, repair or maintain structures Unit 24 Learning Outcome 2: Be able to construct, repair or maintain surfaces Unit 24 Learning Outcome 2: Be able to carry out practical habitat management work
Learning Aim B: Manage effective planning of estate construction and maintenance projects to aid animal management	
B1 Assessing needs B2 Planning estate skills tasks B3 Supervising estate skills tasks	Partially covered in: <ul style="list-style-type: none"> Unit 24 Learning Outcome 1: Be able to construct, repair or maintain boundaries Unit 24 Learning Outcome 2: Be able to construct, repair or maintain structures Unit 24 Learning Outcome 2: Be able to construct, repair or maintain surfaces Unit 24 Learning Outcome 2: Be able to carry out practical habitat management work
Learning Aim C: Carry out practical estate construction and maintenance for animal management	
	Partially covered in:

C1 Practical repair, maintenance, construction and installation tasks	<ul style="list-style-type: none"> Unit 24 Learning Outcome 1: Be able to construct, repair or maintain boundaries Unit 24 Learning Outcome 2: Be able to construct, repair or maintain structures Unit 24 Learning Outcome 2: Be able to construct, repair or maintain surfaces Unit 24 Learning Outcome 2: Be able to carry out practical habitat management work
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2016	2010
Unit 23: Zoological Animal Health and Husbandry	
Comments/Details: This new unit is an optional unit for the foundation diploma (540GLH), diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is internally assessed and has direct links with units 1 and 31 QCF	
Learning Aim A: Understand legislative requirements to meet animal welfare and human safety needs in zoological collections	
A1 Legislative requirements A2 Requirements for record keeping, monitoring and reporting	Partially covered in: <ul style="list-style-type: none"> Unit 31 Learning Outcome 1: Understand the housing and accommodation requirements of zoo animals
Learning Aim B: Examine the approaches used to maintain the health and welfare of animals in zoological collections	
B1 Accommodation requirements for zoo animals B2 Managing the welfare of zoo animals B3 Managing the physical health of zoo animals B4 Diseases in zoo animals	Fully covered in: <ul style="list-style-type: none"> Unit 31 Learning Outcome 1: Understand the housing and accommodation requirements of zoo animals Unit 31 Learning Outcome 3: Understand the importance of health and welfare of zoo animals Unit 31 Learning Outcome 4: Understand the essential features of nutrition and feeding of zoo animals Unit 1 Learning Outcome 1: Understand common diseases and disorders, their treatment and prevention
Learning Aim C: Investigate the techniques required for the safe and competent handling and restraint of animals in zoological collections	
C1 Planning for the safe handling and restraint of zoo animals C2 Handling and restraint methods	Partially covered in: <ul style="list-style-type: none"> Unit 31 Learning Outcome 2: Know the techniques and equipment required for competent restraint of zoo animals Unit 20 Learning Outcome 4: Be able to carry out wildlife population monitoring

2016	2010
Unit 24: Wildlife Ecology and Conservation Management	
Comments/Details: This new unit is an optional unit for the foundation diploma (540GLH), diploma (720 GLH) and extended diploma (1080 GLH) pathways. It is internally assessed and has direct links with units 19 and 20 QCF	
Learning Aim A: Understand the characteristics of ecosystems for wildlife habitat planning and rehabilitation	
A1 Distribution of ecosystems A2 Relationships in ecosystems A3 Human interactions with ecosystems	Partially covered in: <ul style="list-style-type: none"> • Unit 19: Learning Outcome 1: Understand changes in global ecosystems • Unit 20: Learning Outcome 3: Understand wildlife and human interaction
Learning Aim B: Carry out field studies into wildlife populations and their habitats for the purpose of planning for wildlife management	
B1 Habitat surveys for wildlife management B2 Monitoring wildlife populations B3 Planning for wildlife habitat management and rehabilitation	Fully covered in: <ul style="list-style-type: none"> • Unit 19 Learning Outcome 4: Be able to conduct field studies of habitats and wildlife populations • Unit 20 Learning Outcome 3: Be able to rehabilitate wildlife
Learning Aim C: Undertake practical wildlife and conservation management to affect biodiversity	
C1 Interpretation of habitat management and wildlife rehabilitation plans C2 Carrying out practical habitat management and wildlife rehabilitation C3 Monitoring the outcomes of practical habitat management and wildlife rehabilitation	Partially covered in: <ul style="list-style-type: none"> • Unit 19 Learning Outcome 4: Be able to conduct field studies of habitats and wildlife populations • Unit 20 Learning Outcome 4: Be able to carry out wildlife population monitoring

Section 2: What do these changes mean for planning and teaching?

Main benefits

- A wide choice of qualifications across 4 sizes
- All qualifications carry UCAS points
- Funded for 19+ learners
- The suite offers Technical qualifications that are aligned to forthcoming apprenticeships

What are the key changes that I need to be aware of?

Different language used for delivery

You can find a glossary of key terms and command verbs for both internally and externally assessed units below:

Internally assessed: appendix 2 within the specifications, found [here](#)

Externally assessed: [here](#)

An example of where the key terms have changed is below:

2016 unit 23: Zoological Animal Health and Husbandry	2010 unit 31: Understand the Principles of Zoological Animal Health and Husbandry
Pass criteria requires 'Explain'	Pass criteria required a range of actions including, "explain", "discuss" and "describe"

Which units are being externally assessed?

Unit	First Assessment Window
1: Animal Breeding and Genetics	May / June 2018
2: Animal Biology	May / June 2017
3: Animal Welfare and Ethics	May / June 2017

How should I plan delivery of these units to reflect the changes in assessment?

More guidance on delivery models can be found within BTEC Nationals Delivery Guide and Delivery Plans.

These documents are available within the course materials section for Animal Management (accessible [here](#))