

Pearson BTEC Level 3 National Extended Diploma in Equine Management



Specification

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Issue 6

Pearson BTEC Level 3 National Extended Diploma in Equine Management Specification

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Edexcel, BTEC and LCCI qualifications

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This specification is Issue 6. We will inform centres of any changes to this issue. The latest issue can be found on our website.

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Welcome

With a track record built over 30 years of learner success, BTEC Nationals are widely recognised by industry and higher education as the signature vocational qualification at Level 3. They provide progression to the workplace either directly or via study at a higher level. Proof comes from YouGov research, which shows that 62% of large companies have recruited employees with BTEC qualifications. What's more, well over 100,000 BTEC students apply to UK universities every year and their BTEC Nationals are accepted by over 150 UK universities and higher education institutes for relevant degree programmes either on their own or in combination with A Levels.

Why are BTECs so successful?

BTECs embody a fundamentally learner-centred approach to the curriculum, with a flexible, unit-based structure and knowledge applied in project-based assessments. They focus on the holistic development of the practical, interpersonal and thinking skills required to be able to succeed in employment and higher education.

When creating the BTEC Nationals in this suite, we worked with many employers, higher education providers, colleges and schools to ensure that their needs are met. Employers are looking for recruits with a thorough grounding in the latest industry requirements and work-ready skills such as teamwork. Higher education needs students who have experience of research, extended writing and meeting deadlines.

We have addressed these requirements with:

- a range of BTEC sizes, each with a clear purpose, so there is something to suit each learner's choice of study programme and progression plans
- refreshed content that is closely aligned with employers' and higher education needs for a skilled future workforce
- assessments and projects chosen to help learners progress to the next stage. This means some are set by you to meet local needs, while others are set and marked by Pearson so that there is a core of skills and understanding that is common to all learners. For example, a written test can be used to check that learners are confident in using technical knowledge to carry out a certain job.

We are providing a wealth of support, both resources and people, to ensure that learners and their teachers have the best possible experience during their course. See *Section 10* for details of the support we offer.

A word to learners

Today's BTEC Nationals are demanding, as you would expect of the most respected applied learning qualification in the UK. You will have to choose and complete a range of units, be organised, take some assessments that we will set and mark, and keep a portfolio of your assignments. But you can feel proud to achieve a BTEC because, whatever your plans in life – whether you decide to study further, go on to work or an apprenticeship, or set up your own business – your BTEC National will be your passport to success in the next stage of your life.

Good luck, and we hope you enjoy your course.

Collaborative development

Students completing their BTEC Nationals in Equine Management will be aiming to go on to employment, often via the stepping stone of higher education. It was, therefore, essential that we developed these qualifications in close collaboration with experts from professional bodies, businesses and universities, and with the providers who will be delivering the qualifications. To ensure that the content meets providers' needs and provides high-quality preparation for progression, we engaged experts. We are very grateful to all the university and further education lecturers, teachers, employers, professional body representatives and other individuals who have generously shared their time and expertise to help us develop these new qualifications.

Employers, professional bodies and higher education providers that have worked with us include:

Andrew Monnington & Partners, Mapsons Farm Livery Yard

Beatrice Boyle – McTimoney Animal Practitioner

Blue Cross

Kontäkt Dressage.

In addition, universities, professional bodies and businesses have provided letters of support confirming that these qualifications meet their entry requirements. These letters can be viewed on our website.

Summary of Pearson BTEC Level 3 National Extended Diploma in Equine Management specification Issue 6 changes

Summary of changes made between the previous issue and this current issue	Page number
The last paragraph of the <i>Qualification and unit content</i> section has been amended to allow centres delivering the qualification above to alter the content to reflect the context of the country where it is being delivered.	Page 7

If you need further information on these changes or what they mean, contact us via our website at: qualifications.pearson.com/en/support/contact-us.html.

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Introduction to BTEC National qualifications for the equine management sector

This specification contains the information you need to deliver the Pearson BTEC Level 3 National Extended Diploma in Equine Management. The specification signposts you to additional handbooks and policies. It includes all the units for this qualification.

This qualification is part of the suite of Equine Management qualifications offered by Pearson. In the suite there are qualifications that focus on different progression routes, allowing learners to choose the one best suited to their aspirations.

All qualifications in the suite share some common units and assessments, allowing learners some flexibility in moving between qualifications where they wish to select a more specific progression route. The qualification titles are given below.

Within this suite are BTEC National qualifications for post-16 learners wishing to specialise in a specific industry, occupation or occupational group. The qualifications give learners specialist knowledge and technical skills, enabling entry to an Apprenticeship or other employment, or progression to related higher education courses. Learners taking these qualifications must have a significant level of employer involvement in their programmes.

In the equine management sector these are:

Pearson BTEC Level 3 National Extended Diploma in Equine Management (601/9059/0)

Pearson BTEC Level 3 National Diploma in Equine Management (Yard Management) (601/9056/5)

Pearson BTEC Level 3 National Diploma in Equine Management (Equitation) (601/9062/0)

Pearson BTEC Level 3 National Foundation Diploma in Equine Management (601/9066/8)

Pearson BTEC Level 3 National Extended Certificate in Equine Management (601/9064/4).

This specification signposts all the other essential documents and support that you need as a centre in order to deliver, assess and administer the qualification, including the staff development required. A summary of all essential documents is given in *Section 7*. Information on how we can support you with this qualification is given in *Section 10*.

The information in this specification is correct at the time of publication.

Total Qualification Time

For all regulated qualifications, Pearson specifies a total number of hours that it is estimated learners will require to complete and show achievement for the qualification: this is the Total Qualification Time (TQT). Within TQT, Pearson identifies the number of Guided Learning Hours (GLH) that we estimate a centre delivering the qualification might provide. Guided learning means activities, such as lessons, tutorials, online instruction, supervised study and giving feedback on performance, that directly involve teachers and assessors in teaching, supervising and invigilating learners. Guided learning includes the time required for learners to complete external assessment under examination or supervised conditions.

In addition to guided learning, other required learning directed by teachers or assessors will include private study, preparation for assessment and undertaking assessment when not under supervision, such as preparatory reading, revision and independent research.

BTEC Nationals have been designed around the number of hours of guided learning expected. Each unit in the qualification has a GLH value of 60, 90 or 120. There is then a total GLH value for the qualification.

Each qualification has a TQT value. This may vary within sectors and across the suite depending on the nature of the units in each qualification and the expected time for other required learning.

The following table show all the qualifications in this sector and their GLH and TQT values.

Qualifications, sizes and purposes at a glance

Title	Size and structure	Summary purpose
Pearson BTEC Level 3 National Extended Certificate in Equine Management	360 GLH (560 TQT) Equivalent in size to one A Level. 5 units of which 4 are mandatory and 1 is external. Mandatory content (83%). External assessment (33%).	This qualification offers an engaging programme to support learners who want to pursue a career in the equine sector. It is intended as a Tech Level qualification. This size of qualification allows learners to study related and complementary qualifications alongside it, without duplication of content. It can prepare learners for a range of apprenticeships in the equine sector, or direct entry to roles such as trainee groom or stable yard worker. When taken alongside further Level 3 qualifications, it supports progression to a range of higher education courses in equine management.
Pearson BTEC Level 3 National Foundation Diploma in Equine Management	540 GLH (880 TQT) Equivalent in size to 1.5 A Levels. 7 units of which 6 are mandatory and 2 are external. Mandatory content (89%). External assessment (44%).	This qualification is designed as a one-year, full-time course, or as part of a two-year, full-time study programme for learners who want to take it alongside another area of complementary study. It is intended as a Tech Level qualification and supports progression to careers in the equine management sector. This qualification is primarily for learners who are intending to gain employment directly, in roles such as assistant groom or yard assistant, but can also be used to progress to an apprenticeship or a higher education course in equine management.
Pearson BTEC Level 3 National Diploma in Equine Management (Yard Management)	720 GLH (1210 TQT) Equivalent in size to two A Levels. 10 units of which 8 are mandatory and 2 are external. Mandatory content (83%). External assessment (33%).	This qualification is designed to be the substantive part of a 16–19 study programme for learners who want a strong core of sector study. It is intended as a Tech Level qualification and supports progression to careers in the equine management sector. The qualification is a one-year, full-time course that is a comprehensive introduction to the sector, and is primarily for learners who are intending to gain employment directly, in roles such as yard supervisor or event supervisor, or progress to an apprenticeship. The qualification focuses on management roles in the sector.

Title	Size and structure	Summary purpose
Pearson BTEC National Diploma in Equine Management (Equitation)	720 GLH (1180 TQT) Equivalent in size to two A Levels. 10 units of which 8 are mandatory and 2 are external. Mandatory content (83%). External assessment (33%).	This qualification is designed to be the substantive part of a 16–19 study programme for learners who want a strong core of sector study. It is intended as a Tech Level qualification and supports progression to careers in the equine management sector. The qualification is a one-year, full-time course that is a comprehensive introduction to the sector, and is primarily for learners who are intending to gain employment directly, in roles such as trainee riding instructor or ride leader, or progress to an apprenticeship or to higher education courses in equine management that focus on equitation.
Pearson BTEC National Extended Diploma in Equine Management	1080 GLH (1730 TQT) Equivalent in size to three A Levels. 15 units of which 9 are mandatory and 3 are external. Mandatory content (67%). External assessment (33%).	This qualification is a two-year, full-time course for post-16 learners and is intended as a Tech Level qualification. It is designed for learners who want to focus their studies on the equine management sector, with a firm intention of progressing to employment in one of the wide variety of riding and non-riding management roles available. Science options have been included to aid those learners who intend to further their studies in higher education.

Structures of the qualifications at a glance

This table shows all the units and the qualifications to which they contribute. The full structure for this Pearson BTEC Level 3 National in Equine Management is shown in *Section 2*. **You must refer to the full structure to select units and plan your programme.**

Key

Unit assessed externally	M	Mandatory units	O	Optional units
YM	Yard Management		E	Equitation

Unit (number and title)	Unit size (GLH)	Extended Certificate (360 GLH)	Foundation Diploma (540 GLH)	Diploma (720 GLH)		Extended Diploma (1080 GLH)
				(YM)	(E)	
1 Equine Structure, Form and Function	120	M	M	M	M	M
2 Equine Diet and Nutrition	120		M	M	M	M
3 Managing Equine Disease	120					M
4 Work Experience in the Equine Sector	60	M	M	M	M	M
5 Horse Tack, Equipment and Rugs	60	M	M	M	M	M
6 Equine Health and Husbandry	60	M	M	M	M	M
7 Preparation and Presentation for Competition Disciplines	60	O	M	O	M	M
8 Equine Behaviour	60	O	O	O	O	M
9 Managing an Equine Yard	60			M		M
10 Equine Business Management	60		O	M		O
11 Horse Fitness	60				M	O
12 Schooling Horses on the Flat	60				M	O
13 Managing an Equine Event	60			M		O
14 Theory of Training Horses	60				O	O
15 Riding Horses in the Open	60	O	O	O	O	O
16 Ground Poles and Gridwork for Horses	60				O	O
17 Showjumping and Cross-country Courses	60				O	O
18 Estates Skills and Grassland Management	60	O	O	O	O	O

continued on next page

Unit (number and title)	Unit size (GLH)	Extended Certificate (360 GLH)	Foundation Diploma (540 GLH)	Diploma (YM) (720 GLH)	Diploma (E) (720 GLH)	Extended Diploma (1080 GLH)
19 Working Horses from the Ground	60			0	0	0
20 Introduction to Equestrian Coaching	60	0	0	0	0	0
21 Equine Stud Management	60			0		0
22 Managing Equine Injuries and Rehabilitation	60			0	0	0
23 Investigative Research Project in the Equine Sector	60					0
24 Practical Skills in Animal Science	60					0
25 Animal Metabolism	60					0
26 Equine Function at the Cellular Level	60					0

Qualification and unit content

Pearson has developed the content of the new BTEC Nationals in collaboration with employers and representatives from higher education and relevant professional bodies. In this way, we have ensured that content is up to date and that it includes the knowledge, understanding, skills and attributes required in the sector.

Each qualification in the suite has its own purpose. The mandatory content provides a balance of breadth and depth ensuring that all learners have a strong basis for developing technical skills required in the sector. Learners are then offered the opportunity to develop a range of technical skills and attributes expected by employers with some opportunity to select between optional units where a degree of choice for individual learners to study content relevant to their own progression choices is appropriate. It is expected that learners will apply their learning in relevant employment and sector contexts during delivery and have opportunities to engage meaningfully with employers. The proportion of mandatory content ensures that all learners are following a coherent programme of study and acquiring the knowledge, understanding and skills that will be recognised and valued. Learners are expected to show achievement across mandatory units as detailed in *Section 2*.

BTEC Nationals have always required applied learning that brings together knowledge and understanding (the cognitive domain) with practical and technical skills (the psychomotor domain). This is achieved through learners performing vocational tasks that encourage the development of appropriate vocational behaviours (the affective domain) and transferable skills. Transferable skills are those such as communication, teamwork, planning and completing tasks to high standards, which are valued in both the workplace and in higher education.

Our approach provides rigour and balance, and promotes the ability to apply learning immediately in new contexts. Further details can be found in *Section 2*.

Centres should ensure that delivery of content is kept up to date. Some of the units within the specification may contain references to legislation, policies, regulations and organisations, which may not be applicable in the country you deliver this qualification in (if teaching outside of England), or which may have gone out-of-date during the lifespan of the specification. In these instances, it is possible to substitute such references with ones that are current and applicable in the country you deliver subject to confirmation by your Standards Verifier.

Assessment

Assessment is specifically designed to fit the purpose and objective of the qualification. It includes a range of assessment types and styles suited to vocational qualifications in the sector. There are three main forms of assessment that you need to be aware of: external, internal and synoptic.

Externally-assessed units

Each external assessment for a BTEC National is linked to a specific unit. All of the units developed for external assessment are of 120 GLH to allow learners to demonstrate breadth and depth of achievement. Each assessment is taken under specified conditions, then marked by Pearson and a grade awarded. Learners are permitted to resit external assessments during their programme. You should refer to our website for current policy information on permitted retakes.

The styles of external assessment used for qualifications in the equine management suite are:

- examinations – all learners take the same assessment at the same time, normally with a written outcome
- set tasks – learners take the assessment during a defined window and demonstrate understanding through completion of a vocational task.

Some external assessments include a period of preparation using set information. External assessments are available twice a year. For detailed information on the external assessments please see the table in *Section 2*. For further information on preparing for external assessment see *Section 5*.

Internally-assessed units

Most units in the sector are internally assessed and subject to external standards verification. This means that you set and assess the assignments that provide the final summative assessment of each unit, using the examples and support that Pearson provides. Before you assess you will need to become an approved centre, if you are not one already. You will need to prepare to assess using the guidance in *Section 6*.

In line with the requirements and guidance for internal assessment, you select the most appropriate assessment styles according to the learning set out in the unit. This ensures 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:

- demonstrate practical and technical skills using appropriate equipment and techniques
- complete realistic tasks to meet specific briefs or particular purposes
- 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.

You will make grading decisions based on the requirements and supporting guidance given in the units. Learners may not make repeated submissions of assignment evidence. For further information see *Section 6*.

Synoptic assessment

Synoptic assessment requires learners to demonstrate that they can identify and use effectively, in an integrated way, an appropriate selection of skills, techniques, concepts, theories and knowledge from across the whole sector as relevant to a key task. BTEC learning has always encouraged learners to apply their learning in realistic contexts using scenarios and realistic activities that will permit learners to draw on and apply their learning. For these qualifications we have formally identified units which contain a synoptic assessment task. Synoptic assessment must take place after the teaching and learning of other mandatory units in order for learners to be able to draw from the full range of content. The synoptic assessment gives learners an opportunity to independently select and apply learning from across their programmes in the completion of a vocational task. Synoptic tasks may be in internally or externally assessed units. The particular unit that contains the synoptic tasks for this qualification is shown in the structure in *Section 2*.

Language of assessment

Assessment of the internal and external units for these qualifications will be available in English. All learner work must be in English. A learner taking the qualifications may be assessed in British or Irish Sign Language where it is permitted for the purpose of reasonable adjustment. For information on reasonable adjustments see *Section 7*.

Grading for units and qualifications

Achievement in the qualification requires a demonstration of depth of study in each unit, assured acquisition of a range of practical skills required for employment or progression to higher education, and successful development of transferable skills. Learners achieving a qualification will have achieved across mandatory units, including external and synoptic assessment.

Units are assessed using a grading scale of Distinction (D), Merit (M), Pass (P), Near Pass (N) and Unclassified (U). The grade of Near Pass is used for externally-assessed units only. All mandatory and optional units contribute proportionately to the overall qualification grade, for example a unit of 120 GLH will contribute double that of a 60 GLH unit.

Qualifications in the suite are graded using a scale of P to D*, **or** PP to D*D*, **or** PPP to D*D*D*. Please see *Section 9* for more details. The relationship between qualification grading scales and unit grades will be subject to regular review as part of Pearson's standards monitoring processes on the basis of learner performance and in consultation with key users of the qualification.

UCAS Tariff points

The BTEC Nationals attract UCAS points. Please go to the UCAS website for full details of the points allocated.

1 Qualification purpose

Pearson BTEC Level 3 National Extended Diploma in Equine Management

In this section you will find information on the purpose of this qualification and how its design meets that purpose through the qualification objective and structure. We publish a full 'Statement of Purpose' for each qualification on our website. These statements are designed to guide you and potential learners to make the most appropriate choice about the size of qualification suitable at recruitment.

Who is this qualification for?

The Pearson BTEC Level 3 National Extended Diploma in Equine Management is intended as a Tech Level qualification, equivalent in size to three A Levels, and as such is designed to meet the Tech Bacc measure when studied alongside Level 3 mathematics and the Extended Project Qualification (EPQ). It will normally be the only qualification in a two-year study programme, and is particularly for learners looking for a full-time course specialising in the equine management sector, with a firm intention of progressing to employment in one of the wide variety of roles available.

As well as direct entry to employment, this qualification will prepare learners for a higher education course such as a specialist degree or a BTEC Higher National Diploma. This route gives learners the opportunity to enter the sector at a higher level, or in a more specialist role.

No prior study of the sector is needed but learners should normally have a range of achievement at Level 2, in GCSEs or equivalent qualifications, including English, mathematics and science.

What does this qualification cover?

The content of this qualification has been developed in consultation with employers and professional bodies to confirm that the content is appropriate for those interested in working in the sector. In addition, higher education providers have been involved to ensure that it fully supports entry to the relevant range of specialist degrees.

There are nine mandatory units that cover the following aspects of equine management:

- Unit 1: Equine Structure, Form and Function
- Unit 2: Equine Diet and Nutrition
- Unit 3: Managing Equine Disease
- Unit 4: Work Experience in the Equine Sector
- Unit 5: Horse Tack, Equipment and Rugs
- Unit 6: Equine Health and Husbandry
- Unit 7: Preparation and Presentation for Competition Disciplines
- Unit 8: Equine Behaviour
- Unit 9: Managing an Equine Yard.

Learners will be able to select six optional units in addition to the mandatory content. These have been designed to support progression to a range of employment opportunities in the equine management sector, and to a range of higher education courses.

Optional units introduce learners to a sector specialist area of their choice, including working in particular environments, and linking with relevant occupational areas.

The optional units cover areas such as:

- Unit 10: Equine Business Management
- Unit 11: Horse Fitness
- Unit 12: Schooling Horses on the Flat
- Unit 13: Managing an Equine Event
- Unit 14: Theory of Training Horses
- Unit 15: Riding Horses in the Open
- Unit 16: Ground Poles and Gridwork for Horses
- Unit 17: Showjumping and Cross-country Courses
- Unit 18: Estates Skills and Grassland Management

- Unit 19: Working Horses from the Ground
- Unit 20: Introduction to Equestrian Coaching
- Unit 21: Equine Stud Management
- Unit 22: Managing Equine Injuries and Rehabilitation
- Unit 23: Investigative Research Project
- Unit 24: Practical Skills in Animal Science
- Unit 25: Animal Metabolism
- Unit 26: Equine Function at the Cellular Level.

All learners taking this qualification will be required to engage with sector employers as part of their course, including 300 hours of evidenced work experience with an employer in the sector, where opportunities will be given to develop practical skills in preparation for employment.

What could this qualification lead to?

This qualification will prepare learners for direct employment in the equine management sector, and is suitable for those wanting to enter a particular specialist area of work such as:

- equine event manager
- yard manager
- stud hand
- riding instructor
- head groom.

There are many roles in this sector where recruitment is at graduate level. The qualification is intended to carry UCAS points and is recognised by higher education providers as meeting admission requirements for many relevant courses, for example:

- BSc (Hons) in Equine Sports Coaching
- BSc (Hons) in Equine Sports Science
- BSc (Hons) in Equine Business Management
- BSc (Hons) in Equine Sports Therapy
- BSc (Hons) in Equine Science and Management
- BSc (Hons) in Equine Training and Management
- BSc (Hons) in Equine Behaviour.

Learners should always check the entry requirements for degree programmes with specific higher education providers.

How does the qualification provide employability and technical skills?

In the BTEC National units there are opportunities during the teaching and learning phase to give learners practice in developing employability skills. Where employability skills are referred to in this specification, we are generally referring to skills in the following three main categories:

- **cognitive and problem-solving skills:** use critical thinking, approach non-routine problems applying expert and creative solutions, use systems and technology
- **intrapersonal skills:** communicating, working collaboratively, negotiating and influencing, self-presentation
- **interpersonal skills:** self-management, adaptability and resilience, self-monitoring and development.

There are also specific requirements in some units for assessment of these skills where relevant, for example, where learners are required to undertake real or simulated activities.

Many of the mandatory and specified optional units encourage learners to develop the specific practical skills that employers are looking for.

How does the qualification provide transferable knowledge and skills for higher education?

All BTEC Nationals provide transferable knowledge and skills that prepare learners for progression to university or other higher study either immediately or for career progression. The transferable skills that universities value include:

- the ability to learn independently
- the ability to research actively and methodically
- being able to give presentations and being active group members.

BTEC learners can also benefit from opportunities for deep learning where they are able to make connections among units and select areas of interest for detailed study. BTEC Nationals provide a vocational context in which learners can become prepared for life-long learning through:

- effective writing
- analytical skills
- creative development
- preparation for assessment methods used in degrees.

2 Structure

Qualification structure

Pearson BTEC Level 3 National Extended Diploma in Equine Management

Mandatory units

There are nine mandatory units, three external and six internal. Learners must complete and achieve at Near Pass grade or above in all mandatory external units and achieve a Pass or above in all mandatory internal units in group A. Learners must complete all the units in group B.

Optional units

Learners must complete at least six optional units.

Units marked with an asterisk * are helpful to learners intending to study equine science at higher education.

Pearson BTEC Level 3 National Extended Diploma in Equine Management				
Unit number	Unit title	GLH	Type	How assessed
Mandatory units group A – learners complete and achieve all units				
1	Equine Structure, Form and Function	120	Mandatory	External
2	Equine Diet and Nutrition	120	Mandatory	External
3	Managing Equine Disease	120	Mandatory and Synoptic	External
5	Horse Tack, Equipment and Rugs	60	Mandatory	Internal
6	Equine Health and Husbandry	60	Mandatory	Internal
Mandatory units group B – learners complete all units				
4	Work Experience in the Equine Sector	60	Mandatory	Internal
7	Preparation and Presentation for Competition Disciplines	60	Mandatory	Internal
8	Equine Behaviour	60	Mandatory	Internal
9	Managing an Equine Yard	60	Mandatory	Internal
Optional units group C – learners complete 6 units				
10	Equine Business Management	60	Optional	Internal
11	Horse Fitness	60	Optional	Internal
12	Schooling Horses on the Flat	60	Optional	Internal
13	Managing an Equine Event	60	Optional	Internal
14	Theory of Training Horses	60	Optional	Internal
15	Riding Horses in the Open	60	Optional	Internal
16	Ground Poles and Gridwork for Horses	60	Optional	Internal
17	Showjumping and Cross-country Courses	60	Optional	Internal
18	Estates Skills and Grassland Management	60	Optional	Internal
19	Working Horses from the Ground	60	Optional	Internal
20	Introduction to Equestrian Coaching	60	Optional	Internal
21	Equine Stud Management	60	Optional	Internal

continued on next page

Optional units group C – learners complete 6 units (<i>continued</i>)				
22	Managing Equine Injuries and Rehabilitation	60	Optional	Internal
23	Investigative Research Project*	60	Optional	Internal
24	Practical Skills in Animal Science*	60	Optional	Internal
25	Animal Metabolism*	60	Optional	Internal
26	Equine Function at the Cellular Level*	60	Optional	Internal

External assessment

This is a summary of the type and availability of external assessment, which is of units making up 33% of the total qualification GLH. See *Section 5* and the units and sample assessment materials for more information.

Unit	Type	Availability
Unit 1: Equine Structure, Form and Function	<ul style="list-style-type: none">• A written examination set and marked by Pearson.• 1 hour 30 minutes.• Written submission.• 80 marks.	Jan and May/June First assessment May/June 2018
Unit 2: Equine Diet and Nutrition	<ul style="list-style-type: none">• A task set and marked by Pearson and completed under supervised conditions.• The supervised assessment is two-hours and thirty minutes in a specified session timetabled by Pearson.• Written submission of evidence.• 60 marks.	Dec/Jan and May/June First assessment May/June 2019
Unit 3: Managing Equine Disease	<ul style="list-style-type: none">• A task set and marked by Pearson and completed under supervised conditions.• The supervised assessment is three hours in a specified session timetabled by Pearson.• Written submission of evidence.• 66 marks.	Dec/Jan and May/June First assessment May/June 2019

Synoptic assessment

The mandatory synoptic assessment requires learners to apply learning from across the qualification to the completion of a defined vocational task. Within the assessment for *Unit 3: Managing Equine Disease* learners evaluate and adapt plans for the practical management of equine diseases in a specific context. Through this, they can apply their understanding of equine physical needs and characteristics as well as their knowledge of practical working practices in the sector. Learners complete the tasks using knowledge and understanding from their studies of the sector and apply both transferable and specialist knowledge and skills.

In delivering the unit you need to encourage learners to draw on their broader learning so they will be prepared for the assessment.

Employer involvement in assessment and delivery

You need to ensure that learners on this qualification have a significant level of employer involvement in programme delivery or assessment. See *Section 4* for more information.

3 Units

Understanding your units

The units in this specification set out our expectations of assessment in a way that helps you to prepare your learners for assessment. The units help you to undertake assessment and quality assurance effectively.

Each unit in the specification is set out in a similar way. There are two types of unit format:

- internal units
- external units.

This section explains how the units work. It is important that all teachers, assessors, internal verifiers and other staff responsible for the programme review this section.

Internal units

Section	Explanation
Unit number	The number is in a sequence in the sector. Numbers may not be sequential for an individual qualification.
Unit title	This is the formal title that we always use and it appears on certificates.
Level	All units are at Level 3 on the national framework.
Unit type	This shows if the unit is internal or external only. See structure information in <i>Section 2</i> for full details.
GLH	Units may have a GLH value of 120, 90 or 60 GLH. This indicates the numbers of hours of teaching, directed activity and assessment expected. It also shows the weighting of the unit in the final qualification grade.
Unit in brief	A brief formal statement on the content of the unit that is helpful in understanding its role in the qualification. You can use this in summary documents, brochures etc.
Unit introduction	This is designed with learners in mind. It indicates why the unit is important, how learning is structured, and how learning might be applied when progressing to employment or higher education.
Learning aims	These help to define the scope, style and depth of learning of the unit. You can see where learners should be learning standard requirements ('understand') or where they should be actively researching ('investigate'). You can find out more about the verbs we use in learning aims in <i>Appendix 2</i> .
Summary of unit	This new section helps teachers to see at a glance the main content areas against the learning aims and the structure of the assessment. The content areas and structure of assessment are required. The forms of evidence given are suitable to fulfil the requirements.
Content	This section sets out the required teaching content of the unit. Content is compulsory except when shown as 'e.g.'. Learners should be asked to complete summative assessment only after the teaching content for the unit or learning aim(s) has been covered.

Section	Explanation
Assessment criteria	<p>Each learning aim has Pass and Merit criteria. Each assignment has at least one Distinction criterion.</p> <p>A full glossary of terms used is given in <i>Appendix 2</i>. All assessors need to understand our expectations of the terms used.</p> <p>Distinction criteria represent outstanding performance in the unit. Some criteria require learners to draw together learning from across the learning aims.</p>
Essential information for assignments	<p>This shows the maximum number of assignments that may be used for the unit to allow for effective summative assessment, and how the assessment criteria should be used to assess performance.</p>
Further information for teachers and assessors	<p>The section gives you information to support the implementation of assessment. It is important that this is used carefully alongside the assessment criteria.</p>
Resource requirements	<p>Any specific resources that you need to be able to teach and assess are listed in this section. For information on support resources see <i>Section 10</i>.</p>
Essential information for assessment decisions	<p>This information gives guidance for each learning aim or assignment of the expectations for Pass, Merit and Distinction standard. This section contains examples and essential clarification.</p>
Links to other units	<p>This section shows you the main relationship among units. This section can help you to structure your programme and make best use of materials and resources.</p>
Employer involvement	<p>This section gives you information on the units that can be used to give learners involvement with employers. It will help you to identify the kind of involvement that is likely to be successful.</p>

External units

Section	Explanation
Unit number	The number is in a sequence in the sector. Numbers may not be sequential for an individual qualification.
Unit title	This is the formal title that we always use and it appears on certificates.
Level	All units are at Level 3 on the national framework.
Unit type	This shows if the unit is internal or external only. See structure information in <i>Section 2</i> for full details.
GLH	Units may have a GLH value of 120, 90 or 60 GLH. This indicates the numbers of hours of teaching, directed activity and assessment expected. It also shows the weighting of the unit in the final qualification grade.
Unit in brief	A brief formal statement on the content of the unit.
Unit introduction	This is designed with learners in mind. It indicates why the unit is important, how learning is structured, and how learning might be applied when progressing to employment or higher education.
Summary of assessment	This sets out the type of external assessment used and the way in which it is used to assess achievement.
Assessment outcomes	These show the hierarchy of knowledge, understanding, skills and behaviours that are assessed. Includes information on how this hierarchy relates to command terms in sample assessment materials (SAMs).
Essential content	For external units all the content is obligatory, the depth of content is indicated in the assessment outcomes and sample assessment materials (SAMs). The content will be sampled through the external assessment over time, using the variety of questions or tasks shown.
Grade descriptors	We use grading descriptors when making judgements on grade boundaries. You can use them to understand what we expect to see from learners at particular grades.
Key terms typically used in assessment	These definitions will help you analyse requirements and prepare learners for assessment.
Resources	Any specific resources that you need to be able to teach and assess are listed in this section. For information on support resources see <i>Section 10</i> .
Links to other units	This section shows the main relationship among units. This section can help you to structure your programme and make best use of materials and resources.
Employer involvement	This section gives you information on the units that can be used to give learners involvement with employers. It will help you to identify the kind of involvement that is likely to be successful.

Index of units

This section contains all the units developed for this qualification. Please refer to *pages 5–6* to check which units are available in all qualifications in the equine management sector.

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Unit 1: Equine Structure, Form and Function

Level: **3**

Unit type: **External**

Guided learning hours: **120**

Unit in brief

Learners study the anatomy and physiology of equine biological systems, along with basic genetics.

Unit introduction

In such a broad industry, a working knowledge of equine structure, form and function is essential for successful engagement in many wide-ranging roles. Whether this is for enhancing performance, using knowledge of energy production and muscle movement, or understanding how biological systems interact to inform applied equine healthcare, an insight into equine structure, form and function is essential to understanding both domestic and wild equines.

In this unit, you will study the biological basis of equine locomotion through the study of the anatomy and physiology of the equine musculoskeletal system. Further analysis of the anatomical and physiological structure of equine circulatory, respiratory, reproductive, excretory, thermoregulatory, endocrine and nervous systems will give you a greater appreciation of the exquisite control and balance in these athletic creatures.

This unit will assist you in progressing to courses in farriery, or higher education courses such as equine health and science. It also gives you invaluable knowledge and understanding that will help you to progress to roles such as equine groom, stable manager or assisting in horse training.

Summary of assessment

This unit is assessed by an examination set and marked by Pearson.

The examination will last for 1 hour and 30 minutes.

The paper will consist of a variety of question types, including short-answer and extended-writing questions that will assess learners' understanding of equine anatomy, physiology and genetics.

The number of marks for the paper is 80.

The assessment availability is January and May/June each year. The first assessment availability is May/June 2018.

Sample assessment materials will be available to help centres prepare learners for assessment.

Assessment outcomes

AO1 Demonstrate knowledge of the structure and function of equine body systems

Command words: complete, define, describe, explain, give, identify, label, plot, state

Marks: ranges from 1 to 5 marks

AO2 Demonstrate understanding of the structure and function of equine body systems

Command words: describe, explain, give

Marks: ranges from 1 to 5 marks

AO3 Analyse and evaluate biological information and data related to equine body systems

Command words: compare, discuss, explain

Marks: ranges from 4 to 8 marks

AO4 Make connections between how equine body systems interact in order to function and adapt

Command words: compare, discuss, explain

Marks: ranges from 4 to 8 marks

Essential content

The essential content is set out under content areas. Learners must cover all specified content before the assessment.

A Equine tissues

The structure and function of different tissue types and the link to their role in organs and organ systems.

A1 Tissue types

- Hierarchy of cells, tissues, organs and organ systems.
- Application of terminology related to tissues and systems: basal and apical surfaces; simple, stratified, pseudostratified, squamous, cuboidal.
- Structure and roles of types of epithelial (simple and stratified) and connective (general, loose, dense) tissue related to location and function.

A2 Skin

Structure and roles of skin:

- epidermis (keratinocytes, melanocytes, Merkel cells), basement membrane
- dermis (blood vessels, hair follicles, collagen, elastin, oil and sweat glands)
- subcutis (subcutaneous muscle and fat, blood vessels, nerves)
- hooves and hair as skin appendages.

A3 Bones

- Features of bones: condyles, facets, crests, epicondyles, tuberosities, foramen, fossa, fovea, sinus, epiphysis, diaphysis, hyaline cartilage.
- Anatomy of long bones (periosteum, compact and spongy bone, marrow) and osteons (Haversian canals, lacunae, canaliculi).

A4 Muscles, ligaments and tendons

Appearance, structure and function of the following tissues:

- muscles – cardiac, striated, smooth
- ligaments and tendons, to include muscle attachment to bones
- sliding filament theory of muscle contraction.

B Equine biological systems

The structure and function of biological systems and their features and processes.

B1 Blood, respiratory and circulatory systems

- Structure and function of blood and its components, to include plasma, erythrocytes, platelets, lymphocytes (B cells in antibody production, T cells in cell-mediated immunity – details of immune response not required).
- Advantages of a double circulatory system.
- Structure of the equine heart, to include functions of chambers, valves and tissues.
- Initiation and regulation of heartbeat, to include roles of sinoatrial node, atrioventricular node, stretch receptors, bundle of His, Purkinje fibres.
- Cardiac cycle: atrial and ventricular systole and diastole, including position of valves and relative blood pressures at each point in the cycle.
- Arteries, veins and capillaries, aorta and vena cava.
- Structures and processes involved in inhalation, exhalation and gas exchange, to include lung, rib and intercostals.
- Changes in heart rate, respiratory rate and volume in response to changes in blood carbon dioxide and oxygen levels, to include oxygen debt from short-term anaerobic respiration.
- Simple equipment, methods and relevant calculations for analysing cardiovascular changes related to fitness, to include stethoscopes, stopwatches, heart rate monitors.

- Biological adaptations for efficient exchange of oxygen and carbon dioxide at exchange surfaces, red blood cells and the role of the equine spleen.
- Oxygen and carbon dioxide transport between lungs and tissues: oxyhaemoglobin, adult and foetal haemoglobin, oxymyoglobin and myoglobin, to include the Bohr effect.
- Lymphatic system: formation and constitution of lymph, structure and function of lymphatic system, including its role in immunity.

B2 Reproduction

- Gross structure of male reproductive system, to include penis, scrotum, testes, accessory glands, glans penis, retractor penis muscle.
- Gross structure of female reproductive system, to include ovaries, oviduct, infundibulum, uterine body, uterine horns, broad ligaments, cervix, vagina, placenta and mammary glands.
- Definitions of and factors affecting anoestrus, oestrus and dioestrus (seasonal polyoestrus).
- Behavioural and physical signs of heat in the mare.
- Fertilisation, time delay before centric implantation.
- Normal gestation length.
- Main stages of neonatal development.

B3 Excretion

The structure and function of the equine excretory system, and the processes carried out to meet waste removal needs.

- Gross structure of the excretory system, to include kidneys, ureters, bladder, urethra.
- Contribution of the liver to excretion (deamination, detoxification, bilirubin removal).
- Nephron structure, ultrafiltration, role of the loop of Henle in reabsorption of salts and water.
- Purpose and process of removing nitrogenous waste.

B4 Thermoregulation

Regulation of equine body temperature in response to external temperature changes.

- Negative feedback control via heat loss or heat gain centres in the hypothalamus, to include the purpose of maintaining temperature within a narrow range (36.5–38.5 °C).
- Physiological responses to changes in temperature: shivering, evaporative cooling, role and effect of pili erector muscles, vasodilation or vasoconstriction of arterioles next to the skin, countercurrent mechanisms in limbs, changes in metabolic rate, sweating during exercise.
- Other thermoregulatory responses: seasonal coat changes, behavioural changes.

B5 Endocrine control

The structure and function of the equine endocrine system in the context of equine survival and regulation of body systems.

- Locations, roles and secretions of the following glands: adrenal, pineal, pituitary, salivary, sweat, thyroid.
- Role and effect of hormones: site of secretion and target cells.
- Regulation of blood glucose by body tissues and organs, including the roles of insulin, glucagon.
- Role and effects of changing levels of hormones (to include oestrogen, progesterone, luteinising hormone (LH), follicle-stimulating hormone (FSH), androgen-binding hormone, prostaglandin, oxytocin, cortisol, gonadotrophins and testosterone) in male and females, as appropriate:
 - gametogenesis
 - oestrous cycle, seasonality and early pregnancy
 - parturition and lactation.
- Role and action of antidiuretic hormone (ADH) in osmoregulation.
- Role and action of epinephrine.

B6 Nervous control and interaction with the environment

The structure and function of the equine nervous system in the context of equine survival and regulation of body systems.

- Central and peripheral nervous system components.
- Structure, locations and roles of sensory (afferent), interneurons (relay neurons) and motor (efferent) neurons and glial cells, to include myelinated/unmyelinated neurons.
- Transmission of action potentials along myelinated (saltatory conduction) and unmyelinated neurons, to include quantitative and qualitative interpretation of graphs representing changes in potential difference against time.
- Roles and processes of movement of neurotransmitters across synapses, neuromuscular junctions and neuroglandular junctions.
- Roles and regulation of the parasympathetic and sympathetic divisions of the autonomic nervous system.
- The role of and stages in voluntary and non-voluntary reactions and 'fight or flight' responses to perceived threats and predators.
- The role of receptors and sense organs in detecting stimuli.
- Equine eyes:
 - protective role and structure of the equine eyelids
 - general structure of the equine eye, to include sclera, cornea, corpora nigra, conjunctiva, pupil, iris, lens, ciliary body, retina, fovea, optic disc, optic nerve, medial and lateral rectus muscles, eyelids, nictitating membrane, vibrissae
 - equine vision, to include the involvement of the tapetum lucidum, rod and cone photoreceptors
 - equine orbit position, monocular and binocular vision and methods of focus.

C Equine structure, movement and stability

Bones, joints and tissues in the equine musculoskeletal system, and their relation to external anatomy, conformation, movement and stability.

C1 Gross equine anatomy

Locations of the following in relation to the points of the equine:

- skeletal divisions (axial and appendicular)
- vertebral column divisions and numbers (cervical, thoracic, lumbar, sacral, coccygeal)
- major bones – upper and lower jaw, scapula, humerus, radius, splint, cannon, sesamoid, long and short pastern, pisiform, ribs, ischium, femur, fibula, patella, tibia, hock – tuber calcis, tarsus, cuboid)
- main muscles – masseter, rhomboideus, trapezius, splenius, serratus, brachiocephalicus, sternocephalicus, pectoral, deltoid, latissimus dorsi, intercostals, abdominal, superficial gluteal, semitendinosus, radialis, common digital extensor, lateral digital extensor, deep digital flexor
- main ligaments – suspensory, superior and inferior check, collateral, annular and sesamoidean
- main tendons – common digital extensor, superficial digital flexor, deep digital flexor.

C2 Hooves

- Internal anatomy of the hoof: coffin bone, navicular bone, navicula bursa, digital cushion, primary and secondary laminae.
- Externally visible structures of the foot and hoof: sole, frog (including central and collateral grooves), wall (including angles and bars), white line, coronet; use of hoof divisions toe, quarters and heel.
- Functions of internal and external features of the equine hoof in movement and maintaining stability.

C3 Joints

- Locations and actions of major joints, to include the role of synovial fluid: jaw, shoulder, elbow, knee, fetlock, pastern, pedal, hip, stifle, hock – hinge and gliding.
- Limb movement, antagonistic action of muscle pairs, joint types and weight bearing during different gaits (walk, trot, canter, gallop).
- Joint types and the effect of equipment on joint angles and gait.

C4 Conformation

Visual assessment of ideal and poor horse conformation features in diagrams of equines at stand.

- Balance: wither and hip height; topline and underline; heel height, flaring, frog and sole conformation.
- Back: swayback, roach backed, long backed.
- Neck: high/low set, ewe neck, laid back/upright shoulder.
- Front view of foreleg: bow-legged, toes in/out, knock-kneed.
- Side view of forelegs: camped-under, camped-out, knee-sprung, calf-kneed.
- Side view of hind legs: sickle-hocked, upright through hind limbs, camped-under, camped-out.
- Rear view of hind legs: base-wide, base-narrow, bow-legged, cow-hocked.
- Pastern and hoof angle.

Grade descriptors

To achieve a grade learners are expected to demonstrate these attributes across the essential content of the unit. The principle of best fit will apply in awarding grades.

Level 3 Pass

Learners demonstrate knowledge and understanding of the functions of equine structures, such as tissues and organs, related to the functions of equine body systems. They understand the processes that lead to different types of equine movement. They understand how the biological systems of equines in normal health function and interrelate.

Level 3 Distinction

Learners demonstrate a thorough understanding of the structure and function of equine tissues and organs, and how they contribute to the normal functioning of equine body systems. They demonstrate detailed knowledge of equine anatomy and the interrelated structures and processes that bring about movement in the equine. Learners will be able to make connections between control mechanisms at tissue, system and whole body levels. They can analyse and evaluate data and information relating to biological processes in familiar and unfamiliar contexts, and interpret this in order to draw reasoned and valid conclusions.

Key words typically used in assessment

The following table shows the key words that will be used consistently by Pearson in our assessments to ensure learners are rewarded for demonstrating the necessary skills.

Please note: the list below will not necessarily be used in every paper/session and is provided for guidance only.

Command or term	Definition
Compare	Learners identify the main factors relating to two or more items/situations or aspects of a subject that is extended to explain the similarities, differences, advantages and disadvantages.
Complete	Learners provide all items.
Define	Learners state or describe the nature, scope or meaning of a subject as objective facts.
Describe	Learners give a clear, objective account in their own words showing recall, and in some cases application, of the relevant features and information about a subject or process.
Discuss	Learners consider different aspects of a topic and how they interrelate.
Explain	Learners show they understand the origins, functions and objectives of a subject and its suitability for purpose. They give reasons to support an opinion, view or argument, with clear details.
Give	Learners provide one or more piece(s) of information.
Identify	Usually requires some key information to be selected from a given stimulus/source.

Command or term	Definition
Label	Learners name or provide key information about a stimulus material.
Plot	Insert given data on a given graph. This may be a single point or involve drawing lines of best fit/completing a line graph/bar chart.
State	Learners express the condition of or facts about something definitely or clearly.

Links to other units

This unit links to:

- Unit 2: Equine Diet and Nutrition
- Unit 3: Managing Equine Disease
- Unit 6: Equine Health and Husbandry
- Unit 11: Horse Fitness
- Unit 22: Managing Equine Injuries and Rehabilitation
- Unit 26: Equine Function at the Cellular Level.

Employer involvement

Centres can involve employers in the delivery of this unit if there are local opportunities to do so. There is no specific guidance related to this unit.

Unit 2: Equine Diet and Nutrition

Level: **3**

Unit type: **External**

Guided learning hours: **120**

Unit in brief

Learners study the role of nutrients in maintaining equine health and learn to plan, formulate and monitor diets and feeding regimes to meet the individual needs of equines.

Unit introduction

The study of equine nutrition is vital for understanding how to manage equines correctly. Nutrition is an essential aspect of equine management and the leisure/performance food trade now makes up a substantial proportion of the equine industry. An understanding of the fundamentals of animal nutrition is required to give animals the appropriate feeds in the correct quantities, taking into account factors such as species, breed, activity level and age. A balanced diet is vital to the maintenance of animal health and welfare in a captive environment.

In this unit, you will explore the skills and knowledge needed to be able to manage the diets and feeding regimes of leisure and performance equines. You will study the underlying anatomy and physiology of the gastrointestinal tract, the importance of providing the correct nutrient balances and ration formulation, through to the dietary management of equines suffering with nutrition-related disorders.

This unit will help you if you want to move directly to employment such as working as a yard manager, where you will be ready to manage diet and feeding programmes in an equine establishment. This unit will give you the key scientific and practical knowledge you need if you want to progress to higher education, for example to a degree in equine science.

Summary of assessment

This unit is assessed through a task set and marked by Pearson.

In the assessed task, learners are given information and will complete a number of activities demonstrating their knowledge and understanding of equine diet and nutrition.

The task will be carried out under supervised conditions in a single two-hour and thirty-minute session timetabled by Pearson.

The total number of marks for the task is 60.

The assessment availability is December/January and May/June each year. The first assessment availability is May/June 2019.

Sample assessment materials will be available to help centres prepare for assessment.

Assessment outcomes

AO1 Demonstrate knowledge and understanding of principles, practices, techniques and strategies for the diet and nutrition of horses

AO2 Interpret the influence of major nutrients in different feeds and the impact they have on digestive function

AO3 Apply knowledge and understanding of the principles and techniques used to plan, formulate and monitor equine diets and nutritional requirements

AO4 Develop suitable diets and nutritional programmes and recommend feeding strategies for nutritional diseases and disorders, in context with appropriate justification

Essential content

The essential content is set out under content areas. Learners must cover all specified content before the assessment.

A Examine the role of nutrients and their absorption in the hindgut digestive system

A1 Nutrients

Structure, function and roles of major nutrients in the equine, to include reference to daily requirement amounts in different situations.

- Carbohydrates, to include sugars, starches, disaccharides and polysaccharides.
- Proteins, to include amino acids, peptides and polypeptides.
- Lipids, to include fats, oils, triglycerides.
- Essential and non-essential vitamins, to include fat and water soluble forms.
- Essential and non-essential minerals, to include micro and macro classes.
- Soluble and insoluble fibre.
- Water.

A2 The equine digestive system

Structure and function of the equine digestive system, relating the structure of each feature to its function in the digestion and absorption of major nutrients.

- Hindgut fermentation digestive systems and the need for grazing.
- Digestive system organs, to include:
 - teeth and dentition
 - tongue
 - oesophagus
 - monogastric stomach
 - small intestine, to include duodenum, jejunum, ileum
 - caecum and microbial action
 - large intestine, to include ascending and descending colon.
- Movement of foodstuffs through digestive tract, including peristalsis and the action of sphincter muscles.
- Physical and chemical digestion processes, to include the role of digestive enzymes, acid, action of bile, formation of faeces.

B Explore the properties of feeds that inform the planning and implementation of equine diets and feeding regimes

B1 Nutritional content of feeds

The range and relative advantages and disadvantages of equine feedstuffs: appearance, nutritional impact, ingredients, and requirements for storage and feeding.

- Feedstuffs:
 - forages, including hay, haylage, pasture, alfalfa, straw, chaffs
 - straights, including oats, maize, sugar beet, barley, bran
 - fresh foods, including vegetables, pasture, fruit
 - complete (compound) feeds and concentrates for leisure horses through to competition, to include conditioning and non-conditioning cubes, pellets and muesli
 - supplements and balancers, to include herbal, probiotics, oil, veterinary, starch, molasses.
- Nutritional values, to include energy content in kilocalories (kCal) and kilojoules (kJ), protein, fat and carbohydrate content in grams (g).
- Relative digestibility values.

- Ingredients and regulation of pre-prepared or commercial feeds, including the Animal Feed (England) Regulations, European Directives and Decisions on aspects of the marketing, labelling and composition of animal feed, industry trade schemes.
- Prohibited substances in feeds, to include caffeine, theobromine and morphine.

B2 Formulating rations

The processes involved in formulating rations, considering the advantages and disadvantages of feeds in relation to the planning required for individual equine needs and preferences.

- Proximate composition requirements, to include assessment of energy and protein needs.
- Effect of life stage, to include growth, pregnancy, lactation and work level, effect of feeding strategy.
- Proximate composition percentages, to include dry matter, moisture, crude protein, calcium and phosphorous, crude fibre, digestible energy (DE), metabolic energy requirements.
- Ration formulation considerations, to include:
 - exercise level, to include idle, light-intensity work, medium-intensity work, high-intensity work
 - dietary preferences of individuals
 - weather and seasons
 - weight calculation, including use of weight tapes, formulae
 - DE/day in megacalories (MCal) at a maintenance level
 - method of formulation, including algebraic calculations, percentage of body weight, Pearson's squares.
- Dietary calculations, including:
 - analysis of nutrient content of feedstuffs
 - balancing rations, to include meeting requirements by balancing energy and protein content of feeds, forage, concentrate ratios.

B3 Feed preparation and presentation

Advantages and disadvantages, equipment and resources required when considering how to store, prepare and offer feeds to equines.

- Appraisal and selection of feeds, to include availability, quality, cost, individual requirements and preferences, palatability (taste, texture and smell).
- Requirements for feed storage, including hygiene, security, vermin.
- Feeding equipment, including boredom breakers, hay nets and hay feeding devices, hay soakers, scoops and measures, plastic and rubber bowls/skips, tyre bowls, field bowls, weighing scales and balances.
- Completion and interpretation of communication tools for feeding individuals and groups of equines, to include diet plans, feed charts and feeding boards.
- Timing and frequency of feeding, including single meals, multiple meals, ad libitum.
- Meeting individual needs, e.g. oral administration of medication with feed and use of pre-medicated feed.

B4 Planning and monitoring diet regimes

The processes, purposes, equipment, resources and logistics involved in the planning and monitoring of diet regimes. Learners must be able to plan diets that are specific to individual contexts as well as evaluate plans prepared by others.

- Practical considerations of feeding plans and regimes, to include:
 - planning for life stage and health status, including young, geriatric, ill, working, pregnant, lactating
 - feeding and feed quality in relation to horse workload and level of exercise/uses
 - cost of feeding over time, including effective and systematic use of feed resources
 - analysis of wastage and how to prevent this
 - effectiveness of plans against a budget.

- Monitoring progress:
 - amount and type of food eaten
 - water intake from different drinking systems, including automatic and manual
 - change in feeding patterns, including feeding behaviours
 - timings between monitoring, including frequency of review periods
 - feeding requirements in relation to horse workload/uses
 - weight gain/loss using formulae, tapes, weigh scales
 - recommendations for changes in feeding.
- Evaluation of plans and regimes, to include influences on animal health and welfare, measurement of the success or failure of a diet regime in relation to individual equine needs.

C Know common nutritional diseases and disorders of the horse and how to manage them through diet

C1 Nutritional imbalances and dietary management

Causes, signs, symptoms and consequences of minor and major nutritional imbalances, how and why equine diets can be used to address nutritional imbalances, advantages and disadvantages of dietary manipulation and the extent to which nutritional imbalances may be corrected.

- Nutritional excesses, deficiencies and disorders:
 - malnutrition, to include starvation and dietary obesity
 - specific nutrient deficiencies, including electrolyte deficiencies in performance horses
 - specific nutrient excesses, including plant toxicity, e.g. ragwort
 - laminitis and other foot problems
 - equine colic
 - choke
 - equine gastric ulcer syndrome, including equine ulcers.
- Analysis of equine diets to identify potential causes of nutritional imbalances.
- Preparation of dietary management plans in light of individuals suffering from nutritional imbalances in order to:
 - address nutritional imbalances and causal factors in feeding and grazing patterns
 - prevent occurrence or recurrence.
- The role of nutritional supplements, prophylactic treatments, suitably balanced diet and exercise in the management of nutritional imbalances.

Grade descriptors

To achieve a grade learners are expected to demonstrate these attributes across the essential content of the unit. The principle of best fit will apply in awarding grades.

Level 3 Pass

Learners will be able to give limited evaluations and make some recommendations for the diets of individual horses that demonstrates knowledge and understanding of diet and nutrition, relevant to the requirements in the context. They will show an understanding of the process of ration formulation and the nutritional requirements of the individual horse, and will be able to apply relevant nutritional principles and practices to the context, evidencing the ability to implement basic diet and nutrition practices. They will identify suitable feedstuffs for contexts and be able to produce correct feeding criteria for individual horses, with an awareness of their needs. Learners will be able to demonstrate an understanding of the importance of formulating the correct diet, taking into account some nutritional considerations.

Level 3 Distinction

Learners will be able to thoroughly evaluate existing diets for individual horses, demonstrating an in-depth knowledge and understanding of diet and nutrition relevant to the requirements in the context, supported by comprehensive justification and the precise application of principles and practices. They will show a detailed understanding of the health and wellbeing requirements of the individual horse, and apply specific nutritional principles and practices entirely relevant to the context. They will demonstrate an evaluative approach to the precise identification and selection of suitable feedstuffs for contexts that will impact on the digestion and absorption of nutrients, and they will justify actions to overcome these factors. Learners will provide guidance and recommendations that will contain thorough justifications, leading to a cohesive diet sheet that is entirely appropriate to the individual horse and realistic in the context.

Key words typically used in assessment

The following table shows the key words that will be used consistently by Pearson in our assessments to ensure learners are rewarded for demonstrating the necessary skills.

Please note: the list below will not necessarily be used in every paper/session and is provided for guidance only.

Command or term	Definition
Diet	What the horse is being fed.
Diets and feeding regime	Methods in assessing, preparing, delivering and reviewing equine diets and ingredients.
Diet sheet	A record and guide sheet of a horse's dietary requirements.
Dietary evaluation	A breakdown of diets to determine errors and accuracies.
Equine yard	A facility accommodating horses for a purpose.
Formulation	Methods and calculations used to determine dietary rations.
Justification	Learners give reasons or evidence to: <ul style="list-style-type: none"> • support an opinion and/or decision • prove something right or reasonable.

Command or term	Definition
Nutrition	The study of how the nutrient content of feeds are assimilated into the body and how they affect normal bodily functions.
Private livery	Stable accommodation with or without special facilities where the owner pays for care of their horse(s).
Ration	A formulation to determine quantities of feed to be fed.
Rationale	Learners put forward the reasoning and logic behind the course of action suggested.
Recommend	Learners put forward someone or something with approval as being suitable for a particular purpose or role.

Links to other units

This unit links to:

- Unit 1: Equine Structure, Form and Function
- Unit 3: Managing Equine Disease
- Unit 6: Equine Health and Husbandry
- Unit 25: Animal Metabolism
- Unit 26: Equine Function at the Cellular Level.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- observation during work experience
- support from local equine business staff as mentors.

Unit 3: Managing Equine Disease

Level: **3**

Unit type: **External**

Guided learning hours: **120**

Unit in brief

Learners study common diseases, disorders and parasites that cause ill health in equines, along with their signs and symptoms, prevention methods and treatments.

Unit introduction

Understanding how to prevent, recognise and plan for the occurrence of disease, disorders and parasites is essential to disease management in equines and an important skillset for management roles in the equine industry. In the equine sector, there are many reasons why horses need to travel, such as movement of horses for competition across a wide range of disciplines, leisure and veterinary care. It is therefore essential that those working in the sector have a sound understanding of disease management so that they have the necessary skills to prevent the occurrence of disease, or manage it effectively in the event of an outbreak.

In this unit, you will study the pathogens and parasites that cause common diseases and how they develop and replicate. You will learn the varying routes of transmission and how to identify diseases, disorders and parasites from their signs and symptoms. This will help you plan for the management of them and explore their prevention and treatment strategies. To complete the assessment task within this unit, you will need to draw on your learning from across your programme.

The skills you learn in this unit are important for work in the equine industry across all disciplines, such as head groom or stud yard supervisor. This unit will give you sound knowledge to enable you to progress to a higher education course in equine studies.

Summary of assessment

This unit is assessed by a task set by Pearson.

In the assessed task, learners are given information and will complete a number of activities demonstrating their knowledge and understanding of the management of equine disease.

The task will be carried out under supervised conditions in a single three-hour session timetabled by Pearson. The number of marks for the unit is 66.

The assessment availability is December/January and May/June each year. The first assessment availability is May/June 2019.

Sample assessment materials will be available to help centres prepare learners for assessment.

Assessment outcomes

AO1 Demonstrate knowledge and understanding of disease management, treatment and prevention strategies

AO2 Apply knowledge and understanding of management, treatment and prevention strategies to diseases, disorders and parasites in context

AO3 Analyse information and data relating to individual diseases, disorders and parasites, in order to determine modifications and guidance to manage, treat, control and prevent them

AO4 Be able to evaluate and adapt a management plan making connections with a given context

Essential content

The essential content is set out under content areas. Learners must cover all specified content before the assessment.

A Pathogens and parasites that cause common diseases and disorders in equines

A1 Transmission and growth of pathogens

Processes involved in the potential routes of transmission for specific pathogens (bacteria, viruses, fungi, endoparasites and ectoparasites), including:

- direct contact
- airborne
- aerosol
- ingested
- body fluids
- parturition
- fomites
- vectors.
- Growth of pathogens:
 - conditions that limit or kill pathogen growth and those which allow pathogen growth to flourish, to include presence or absence of oxygen (anaerobic conditions), pH levels, temperature, light, humidity
 - equine living conditions that encourage or discourage pathogenic growth.

A2 Equine diseases resulting from pathogens and parasites

- Pathogenic and parasitic causes of common equine disorders and diseases: routes of transmission, signs, symptoms at different stages of disease development as appropriate (initial, established and late), frequency of occurrence in individual circumstances.
- Bacterial diseases in equines: strangles, tetanus, salmonellosis, rain scald.
- Viral diseases in equines: equine influenza, herpes, viral venereal.
- Fungal diseases in equines: ringworm, thrush.
- Endoparasitic infestations: strongyles, cyathostomes, ascarids, threadworm, tapeworm, pinworm, bots.
- Ectoparasitic infestations: lice, mange, ticks, ear mites, horseflies, midges.

A3 Equine disorders

Factors affecting the probable causes and likelihood of occurrence in equine disorders, to include diet, workload, turnout pattern, life stage and health status of individuals:

- colic, laminitis
- Cushing's disease
- recurrent airway obstruction (RAO)
- grass sickness
- mud fever.

B Prevention, management and treatment of equine diseases and disorders

B1 Containing and controlling disease

Control and containment of diseases using a range of processes and systems and their relative efficiencies at preventing the transmission of infectious diseases.

- Isolation, sneeze barriers, quarantine, barrier nursing, protection isolation, personal protective equipment (PPE):
 - stable construction materials
 - waste disposal (clinical waste).

- Disinfection materials and procedures, including awareness of the Control of Substances Hazardous to Health (COSHH) Regulations 2002:
 - interpretation of labels of bactericidal, fungicidal and virucidal chemicals, to include hazard pictograms symbols for 'acute toxicity', 'corrosive', 'explosive', 'flammable', 'gas under pressure', 'hazardous to the environment', 'oxidising', and 'serious health hazard'
 - purpose of removing dirt and debris before disinfection
 - appropriate dilution ratios and contact time
 - purpose and appropriate application of sterilisation methods – steam, pressure and chemical.
- Hand washing and hygiene techniques, including appropriate cleaning of clothing, use of gloves and overalls.
- Purpose and methods of disinfecting footwear and vehicles.
- Use of topical cleaning and antiseptic agents, to include chlorhexidine and saline.

B2 The equine immune system

- The location and function of features of innate immunity in equines:
 - natural physical barriers – skin, hairs, cilia, mucous
 - physical response barriers – coughing, sneezing, urine flow, diarrhoea
 - chemical barriers – lysozyme in tears, vaginal acidity, stomach acid
 - non-specific white blood cells – macrophage and neutrophil phagocytosis
 - inflammation – blood flow and swelling.

B3 Vaccination

- Vaccination purpose, effectiveness and availability: equine influenza, tetanus, equine herpes virus (EHV), equine viral arteritis (EVA) in breeding stallions.
- Purpose and timings of vaccination programmes, records on equine passports.
- Vaccination as artificial/acquired immunity – types of vaccination that may be given:
 - sensitising dose
 - secondary activating dose
 - boosters.
- Purpose and significance of administering vaccines in different vaccination sites: subcutaneous, intravenous, intramuscular, intranasal.

B4 Medication and treatments for equine diseases and disorders

Purposes, modes of action, limitations and benefits of using medications and treatments for equine diseases and disorders.

- Types of treatments: antibiotics, analgesics, anthelmintics.
- Routes of administration:
 - oral – carrier feeds, pastes, powders, syringe dosing
 - topical treatments – spot-ons, sprays, creams.
- Monitoring and control of parasite infestations, to include:
 - tick removal, bot egg removal, faecal worm egg count (FWEC), saliva swabbing for tapeworm.

C Equine health and disease management planning

C1 Routine maintenance of equine health

The processes involved in routine health-management procedures and their significance in the early recognition, prompt control and treatment of diseases and disorders:

- health monitoring – daily visual monitoring, waste output, food/water intake
- physical health monitoring, temperature, pulse and respiration monitoring (TPR)
- grooming, including grooming for specific conditions
- farriery and the importance of initiating a management plan
- dentistry regular inspection.

C2 Features of equine health and disease management plans

Construction of realistic and effective health and disease management control plans, with consideration of logistics, equipment, personnel and procedures required, and the purpose and impact of choosing to include the following in individual and group contexts:

- location of diseased horse in yard, with consideration of layout, facilities, resources, yard usage, and yard location & transmission route of the disease
- environmental conditions – turned out, stabled, temperature, light, ventilation, humidity
- routine care and husbandry, to include
 - accounting for differences in temperament
 - weight monitoring techniques and frequency of measuring weight – weigh tape and weighbridge to ensure good health and correct dosage of treatments
 - purpose and type of records that should be kept in general health records, vaccination and worming programmes, contact details for owners, handlers and vets
- biosecurity measures
 - controlling access to areas
 - hygiene procedures
 - risk assessments
 - procedures in the event of an incident involving transmissible diseases, to include identification of pathogen or parasite and planning for the most effective treatments
 - requirements and procedures involved in notifying the Animal and Plant Health Agency (APHA) of the presence of certain diseases, to include contagious equine metritis (CEM), equine infectious anaemia, equine viral arteritis
- pasture management, to include poo picking, paddock rotation and grazing management.

Grade descriptors

To achieve a grade learners are expected to demonstrate these attributes across the essential content of the unit. The principle of best fit will apply in awarding grades.

Level 3 Pass

Learners will be able to demonstrate knowledge and understanding of equine disease management and care plans, making appropriate recommendations for individual horses and individual diseases, disorders and parasites. They will propose plans that demonstrate a basic understanding of specific diseases, disorders and parasites. They will understand the importance of isolation with regards to disease transmission routes and the immediate care that equines will require on identification of disease, disorder and/or parasite. Learners will demonstrate underpinning knowledge and understanding of the role of the equine immune system and the significance of this when treating and preventing disease. They will recognise when planning that decisions may be detrimental to the health status of equines as individuals or in groups.

Level 3 Distinction

Learners will be able to interpret, evaluate and adapt extensive disease-management plans and detailed care plans, demonstrating knowledge and understanding of many aspects of managing equine health and disease. They will make accurate, justified recommendations for individual horses and individual diseases, disorders and parasites. Learners will be able to plan for the effective management, control and prevention of the transmission of diseases, taking into account a wide range of factors and demonstrating an understanding of the potentially extensive impact of incorrect management decisions. They will understand the importance of isolation with regard to disease transmission routes and the immediate care that equines will require on identification of disease, disorder and/or parasite. Learners will have an understanding of the role of the equine immune system and make links to the significance of this when treating and preventing disease, demonstrated through the use of logical reasoning and justification.

Key words typically used in assessment

The following table shows the key words that will be used consistently by Pearson in our assessments to ensure learners are rewarded for demonstrating the necessary skills.

Please note: the list below will not necessarily be used in every paper/session and is provided for guidance only.

Command or term	Definition
Care plan	A plan of immediate care that an equine will receive, including whether specialist attention is required.
Disease management plan	A plan that outlines the placement and control measures and the subsequent care that a horse receives on establishing the presence of a disease, disorder or parasite.
Interpretation	Learners draw the meaning, purpose or qualities of something from a stimulus.
Justify/justification	Learners give reasons or evidence to: <ul style="list-style-type: none"> • support an opinion and/or decision • prove something right or reasonable.
Recommend	Learners put forward someone or something with approval as being suitable for a particular purpose or role.
Strategies	Method or plan to bring out a desired outcome, such as the achievement of a goal or solution to a problem.

Links to other units

The assessment for this unit task should draw on knowledge, understanding and skills developed from:

- Unit 1: Equine Structure, Form and Function
- Unit 2: Equine Diet and Nutrition
- Unit 4: Work Experience in the Equine Sector
- Unit 5: Horse Tack, Equipment and Rugs
- Unit 6: Equine Health and Husbandry
- Unit 7: Preparation and Presentation for Competition Disciplines
- Unit 8: Equine Behaviour
- Unit 9: Managing an Equine Yard.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- observation during work experience
- support from local equine business staff as mentors.

Unit 4: Work Experience in the Equine Sector

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners research job roles in the equine sector and the progression routes to attain them, and they develop communication and employability skills through study and work experience.

Unit introduction

Where do you picture yourself in five years' time? Do you know about the wide range of working opportunities open to you in the equine sector? Discovering these opportunities and understanding the skills and qualifications needed in order to gain employment in this sector will help you to answer these questions, as well as plan your career.

In this unit, as well as investigating employment opportunities, you will examine how good communication and employability skills can improve your prospects in gaining and staying in employment, and learn how and where to access information about employment vacancies and further courses of study. You will learn how to develop your curriculum vitae (CV) and adapt it for specific vacancies, and how to develop good communication, interview and customer service skills. You will apply for and take on available work experience roles in the sector and reflect on your own progress.

This unit will help prepare you for employment in the equine sector in roles such as event management assistant, riding school assistant, groom or yard assistant. It will also help you progress to higher education in courses such as a BSc (Hons) degree in Equine Training and Management or Equine Sports Coaching.

Learning aims

In this unit you will:

- A** Investigate employment opportunities in the equine sector to target progression
- B** Develop communication and interview skills to improve employment prospects
- C** Undertake work experience in the equine sector to contribute to personal and professional development.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Investigate employment opportunities in the equine sector to target progression	A1 Scope of the equine sector A2 Requirements for progression A3 Relevant legislation for work placement opportunities	A portfolio of work-related learning research, completed application documents and mock interview outcomes, e.g. observation, video.
B Develop communication and interview skills to improve employment prospects	B1 Applying for work experience activities B2 Interview skills B3 Reflecting on preparation and performance	
C Undertake work experience in the equine sector to contribute to personal and professional development	C1 Practical work experience C2 Work behaviours C3 Reflecting on workplace practice	A report reflecting on work experience, informed by employer verification of participation and other feedback.

Content

Learning aim A: Investigate employment opportunities in the equine sector to target progression

A1 Scope of the equine sector

Analysis of progression opportunities to determine desirability, suitability and feasibility.

- Higher education – UCAS, entry requirements, student loans.
- Apprenticeships – requirements, timescales, pay scales, balance between academic and practical work, assessment, higher apprenticeships.
- Employment sectors:
 - public sector, e.g. education, government, local government (Department for Environment, Food and Rural Affairs)
 - private sector, e.g. riding schools, stud farms, horse riding instruction, racing yards
 - voluntary sector or charities, e.g. Royal Society for the Prevention of Cruelty to Animals (RSPCA), welfare charities and sanctuaries.
- Employment sectors, to include an appropriate broad representation of current industries, e.g. racing industries, military and police, nutrition development and equine paraprofessionals such as equine dental technicians.
- Self-employment, e.g. riding for training, riding instructor, equine therapist.

A2 Requirements for progression

- Knowledge of formal and informal requirements for progression.
- Entry criteria, including qualifications, skills and knowledge.
- Self-management, including study skills, presentation and attitude, time management and planning.
- Exit criteria for specific progression routes.
- Soft skills, including communication, problem solving, individual and team and leadership skills, personal management.

A3 Relevant legislation for work placement opportunities

- Safeguarding at work placements.
- Contracts of employment and working hours (in relation to age), including zero-hours contracts/fixed-term/hourly-paid/permanent (full/part) contracts, work time regulations, Pay As You Earn (PAYE), statutory leave, maternity/paternity leave, employment status.
- Different legal status of business: single owner (self-employed)/partnership/limited company/self-employed subcontractor.
- Awareness of the impact of current legislation supporting conduct in the workplace for employers and employees (full-time, part-time, casual, interns and work placements), such as:
 - health and safety at work legislation
 - equality legislation
 - data protection legislation
 - control of substances hazardous to health (COSHH) regulations
 - reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) 1995
 - animal welfare legislation
 - equine codes of practice.

Learning aim B: Develop communication and interview skills to improve employment prospects

B1 Applying for work experience activities

- Selection of work, including different sources of vacancies such as websites, trade publications and sector-wide bodies, e.g. Lantra.
- Importance of reading job description, personal specification, including relevance of essential or desirable criteria, to include qualifications, skills, experience.
- Completion of CV and adapting CV or job application to specified vacancy.
- Letters of application, supporting statements and completing application forms, to include standing out from the crowd, addressing relevance to employers and how they might shortlist candidates.
- Correct use of language, grammar, spelling and punctuation.

B2 Interview skills

Creating an impression through effective communication.

- Preparation and presentation skills, including:
 - planning and practice for the interview
 - interview styles, e.g. competency- or behavior-based, knowledge focused
 - personal appearance and hygiene
 - interpersonal skills and attitude
 - body language.
- Listening and talking skills, including:
 - interview conventions
 - use of language – what is/what is not appropriate
 - building rapport
 - developing a dialogue
 - effective listening and questioning
 - non-verbal communication, e.g. eye contact.

B3 Reflecting on preparation and performance

- Reflecting on preparation for interviews and interview performance, including knowledge of employer and role, communication skills, professional behaviour.

Learning aim C: Undertake work experience in the equine sector to contribute to personal and professional development

C1 Practical work experience

Operating in workplace practices, including:

- knowledge of the purpose of the business and/or environment
- knowledge of reporting procedures with regards to behaviour and expectations, e.g. lateness, sickness, emergency
- health and safety protocols, e.g. fire safety, emergency procedures
- procedures to maintain confidentiality.

C2 Work behaviours

- Completion of role to add value in the workplace:
 - understanding the extent and limitation of own roles and responsibilities
 - carrying out tasks according to roles and responsibilities
 - following instructions
 - communicating with others
 - self-management
 - working safely
 - reliability, regular attendance and commitment
 - punctuality

- use of initiative
- cooperation with colleagues and end users, e.g. customers, clients, other organisations.
- Obtaining feedback, including:
 - timesheets signed by an appointed person at work experience employment, confirming appropriate attendance and punctuality
 - employer or teacher observation/witness statements
 - employer feedback sheets, provided at intervals.

C3 Reflecting on workplace practice

Reflecting on personal performance in relation to own career progression, to include:

- formative feedback from employer(s), colleagues, teacher, stakeholders
- performance self-assessment
- review of areas for development, to include SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis, SMART (Specific, Measurable, Achievable, Relevant, Time-based) target setting, knowledge of SWOT and SMART in learning development.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Investigate employment opportunities in the equine sector to target progression		
<p>A.P1 Explain the value of own research and preparation for work experience, related opportunities and progression routes.</p> <p>A.P2 Explain accurately the relevant legislation relating to a work placement.</p>	<p>A.M1 Analyse the value of own research and preparation for work experience, related opportunities and progression routes.</p>	
Learning aim B: Develop communication and interview skills to improve employment prospects		<p>AB.D1 Evaluate own preparation for and performance in work experience interview, including review of all future opportunities.</p> <p>AB.D2 Evaluate how effective own preparation for, and participation in, work experience can significantly enhance employment prospects.</p>
<p>B.P3 Explain the preparation and research required for a work experience interview.</p> <p>B.P4 Demonstrate communication and interpersonal skills as an interviewee for a selected work experience.</p>	<p>B.M2 Perform proficiently as an interviewee for a selected work experience, using appropriate communication and interpersonal skills.</p>	
Learning aim C: Undertake work experience in the equine sector to contribute to personal and professional development		<p>C.D3 Evaluate the effectiveness of the work experience carried out in improving occupational and personal skills to make best use of opportunities for employment.</p>
<p>C.P5 Explain how the work experience undertaken has improved occupational and personal skills for future opportunities.</p> <p>C.P6 Review how own performance during work experience contributed to the employer.</p>	<p>C.M3 Assess the value of the occupational and personal skills developed during work experience for future opportunities.</p> <p>C.M4 Analyse the impact on the employer of own performance during work experience.</p>	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aims: A and B (A.P1, A.P2, B.P3, B.P4, A.M1, B.M2, AB.D1, AB.D2)

Learning aim: C (C.P5, C.P6, C.M3, C.M4, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to a work experience role, for example work placement, part-time work, volunteering etc. Employers must be external to the centre.

Teachers should consider devising a set of criteria they can use to give feedback when carrying out practice interviews.

Essential information for assessment decisions

Learning aims A and B

For distinction standard, learners must produce a written report evaluating the quality of their own preparation when seeking work experience. This will include their investigation and research, completion of application documents adapted for specific roles and completion of a mock interview or employer-evidenced real interview.

The report must include conclusions about the quality of each step of the preparation, linking this to the teacher's evaluation of the mock interview and the chance of securing employment. Learners must write a conclusion that includes clear understanding of best practice in this area.

For merit standard, learners must produce a written analysis of the quality of their own preparation when seeking work experience. This will include their investigation and research, completion of application documents adapted for specific roles and completion of a good mock interview, or employer-evidenced real interview. The analysis must include a detailed examination of each step of the preparation, linking this to the chance of securing employment. Learners must include an analysis of the teacher's evaluation of the mock interview.

For pass standard, learners must consider the value of their own preparation when seeking work experience, for example investigation and research, completion of application documents adapted to specific roles and completion of a mock interview, or employer-evidenced real interview. Learners must include links to the teacher's evaluation of the mock interview. Learners could include a SWOT analysis.

Learning aim C

Work experience reviewed by learners must comprise at least 60% of the work-experience hours required by the qualification.

For distinction standard, learners must undertake work experience and supply reasoning in their reflective reports to determine the effectiveness of the completed work experience and its capacity to improve their opportunities for employment. Their reasoning must consider the relationship between the occupational and personal skills developed during the work experience and how these may help them in securing future employment. The relationship between learners' own performance during work experience and its impact on the employer must also be covered. Learners must consider how well they prepared themselves for the work experience activities in order to gain the most from the experience(s). Learners' reflections should take account of employer and teacher feedback and their observations of learners during their work experience.

For merit standard, learners must undertake work experience and present in their reflective reports a relationship between the occupational and personal skills developed during the work experience, and a discussion about how these skills will help secure employment. Learners must consider the relationship between their own performance during the work experience and its impact on the employer. Learners' reflections should take account of employer and teacher feedback and their observations of learners during their work experience.

For pass standard, learners must undertake work experience and present in their reflective reports a consideration of how they developed different occupational and personal skills during their placement. Learners must make a formal assessment of their own performance during work experience based on feedback, including a SWOT analysis, and link this to their contribution to the employer. Learners' reflections should take account of employer and teacher feedback and their observations of learners during their work experience.

Links to other units

This unit links with all others in the specification.

Employer involvement

Learners must have access to a work experience placement in an equine sector setting. Learners must be given a work experience log so that they can record the skills they develop on their placement and plan for their development. Evidence must be obtained from employers showing that learners have undertaken the work-experience hours required for the qualification.

Unit 5: Horse Tack, Equipment and Rugs

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners select and fit commonly used horse tack and auxiliary equipment when preparing horses for daily ridden work and rest, with regard to the welfare of the horse and the safety of riders.

Unit introduction

The equine industry needs employees who are practical and who can select, fit and maintain a range of tack, equipment and rugs. If you are employed to look after horses then you must have the knowledge and skills to provide safe, efficient and effective routines for working with horse tack, equipment and rugs.

In this unit, you will develop the knowledge and skills needed to follow safe working practices and to have a confident and adaptable approach to horses. You will learn about the tack and auxiliary equipment that is commonly used when preparing horses for ridden work in everyday situations, and will practically apply this learning in the fitting and maintenance of tack and equipment. You will select, fit and maintain a variety of horse rugs with an understanding of the role of rugs in supporting the wellbeing of horses.

This unit will help you progress to work as a groom in a private yard, a rehabilitation centre, a riding school or a competition yard. The unit will also prepare you for further training and for higher education equine studies courses.

Learning aims

In this unit you will:

- A** Understand the role of tack and equipment commonly used for working and exercising horses
- B** Fit and maintain tack and equipment for the comfort and safety of horses
- C** Select, fit and maintain horse rugs to support the health and welfare of horses.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Understand the role of tack and equipment commonly used for working and exercising horses	A1 Tack and equipment in everyday use A2 Purpose and effect	A report on the purpose and effect of types of tack and their welfare implications.
B Fit and maintain tack and equipment for the comfort and safety of horses	B1 Application and adjustment of tack and equipment B2 Application and adjustment of boots B3 Maintenance of tack and equipment	A portfolio evidencing practical skills in selecting and fitting types of: tack, auxiliary equipment, boots, rugs and related accessories. This will be supported by a presentation/report on the considerations for horse welfare and rider safety as appropriate.
C Select, fit and maintain horse rugs to support the health and welfare of horses	C1 Selecting types of rug and accessories C2 Fitting rugs C3 Cleaning and storing rugs	A presentation/report on the considerations for horse welfare and rider safety as appropriate.

Content

Learning aim A: Understand the role of tack and equipment commonly used for working and exercising horses

A1 Tack and equipment in everyday use

Understanding the types of tack and equipment in daily use in equestrian establishments and their component parts.

- Bridles, to include:
 - snaffle bridle and nosebands, including cavesson, flash, grackle variations, drop, crank; modern designs, e.g. Micklem multibridle
 - five families of bit, including snaffle, pelham, gag, double, bitless
 - types of rein, e.g. plain, rubber, continental web
 - traditional bitless bridles such as the hackamore; modern bitless bridles, e.g. cross-under, side-pull.
- Martingales, to include running and standing; hunting breastplate.
- Saddles, to include:
 - general purpose saddle, jumping, dressage
 - stirrup irons, e.g. Fillis, safety, bent leg
 - girths to include elasticated, humane, synthetic waffle, contoured, cotton standard.
- Boots in everyday use, e.g. brushing boots of different style, overreach boots, tendon boots.
- Exercise sheets, numnahs and saddlecloths.

A2 Purpose and effect

- Method of control.
- Action of tack and equipment, to include bits, nosebands, martingales.
- Boots, to include:
 - protection from interference from other legs, penetration or concussion from external forces; issue of support/protection, e.g. effectiveness of support to musculoskeletal structures
 - reasons for not using boots and bandages, including waterlogging, overheating tendons during hard work, restriction of movement due to design of boot, discomfort due to poor design of boot, rubs from movement of boot, dirt between boot and skin.
- Consequences of ill-fitting tack and equipment:
 - discomfort and restricted blood flow, limb oedema, pressure points, circulatory disturbance, slipped bandages and pressure points, accident and/or injury.

Learning aim B: Fit and maintain tack and equipment for the comfort and safety of horses

B1 Application and adjustment of tack and equipment

Fitting of saddlery and equipment, evaluation of fit, and the importance of correct fit.

- Selection of appropriate equipment according to horse size, temperament, ability of rider, tack available.
- Methods of approach, including safety, slip knots, correct method of head collar restraint while bridling, horse welfare through correct handling, tying horse up while saddling, securing throat lash.
- Evaluation of fit, areas to concentrate on, including:
 - bridle – length of cheek pieces, tightness behind ears due to browband, bit size, fit of nosebands, throat lash
 - martingale/breastplate – depth through shoulder, depth at sternum, length of running martingale attachments
 - saddle – overall length, shoulder clearance, even contact of panels, gullet clearance and under the saddle arch, balance, e.g. pommel cantle line, no adverse movement, symmetrical, change of fit once mounted.
- Evidence of a poor fit, horse reaction deteriorating over time, rubs, sores.
- Recognition of damaged or worn tack:
 - assessment for safety, areas at increased risk of wear, to include reins and billets, bit, girth leathers and stitching, saddle tree, stirrup leathers, boot fastenings, dirty Velcro®
 - distinguishing between acceptable and excessive wear and tear, when to replace tack and equipment
 - effects of worn or damaged tack and equipment on the horse, e.g. sores, learned negative reactions to the tack
 - effects of worn or damaged tack and equipment on health and safety, e.g. snapped stirrup leathers, broken reins.

B2 Application and adjustment of boots

- Safe working practices, identifying hazards, minimising risks, use of personal protective equipment (PPE).
- Correct and timely application of boots, to include brushing boots, tendon boots, over reach boots, fetlock boots.

B3 Maintenance of tack and equipment

- Maintenance of horse tack and equipment:
 - method of washing, soaping and conditioning of leather bridles, saddles and auxiliary equipment, e.g. use of saddle soap, leather oil
 - method of washing, cleaning and the maintenance of synthetic bridles, saddles and auxiliary equipment
 - method of washing and cleaning horse bits
 - care of numnahs, saddle cloths, boots and bandages, including daily and weekly routines
 - correct storage of saddlery and equipment.
- Importance of clean tack and equipment, including supple leather, preventing breakages, preventing rubs and sores on the horse, checking for worn and damaged tack and equipment.

Learning aim C: Select, fit and maintain horse rugs to support the health and welfare of horses

C1 Selecting types of rug and accessories

Factors affecting selection and use of common rugs.

- Variety of rugs in common use in yards, ranging in size, cost and style, including:
 - types of rugs, including heavy/medium/lightweight turnout rugs, fly sheets, coolers, fleece rugs, summer sheets, stable rugs, under rugs and blankets
 - fly masks, nets and bonnets, anti-rub vests, hoods, surcingles, fillet strings, leg straps.
- Considerations made before rugging, including time of year, condition of horse, breed of horse, current level of work/grooming, available facilities, e.g. loose box, field only, field shelter
- Negative effects of rugging, e.g. overheating, rubs, accidents and injury.

C2 Fitting rugs

Approaches to obtaining effective fit and use of rugs.

- Measuring the horse, e.g. chest to point of buttocks, sizing of rugs.
- Selection of appropriate rug considering design of rug, brands that fit specific shapes and sizes, e.g. warmblood, thoroughbred.
- Correct application and fitting of rugs, areas of concern, to include shoulder and neck, length and depth, shape of hood/neck cover.
- Adjusting rugs, e.g. buckles, straps and cross surcingles.

C3 Cleaning and storing rugs

The importance of cleanliness and tidiness when storing rugs and associated equipment.

- Daily storage, maintenance and handling of rugs to preserve optimum condition and prolong their life.
- Cleaning of rugs, e.g. machine wash, professional cleaning and reproofing, cleaning routine, e.g. end of season, weekly machine wash, hygiene and disease control.
- Storage of rugs, to include bagging to prevent dust, mould, mice.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand the role of tack and equipment commonly used for working and exercising horses		A.D1 Evaluate how tack and equipment design meets purpose and affects the welfare of the horse.
A.P1 Explain the purpose and effect of horse nosebands and martingales. A.P2 Explain the purpose and effect of horse bits in common use.	A.M1 Analyse the purpose and effect of nosebands, martingales and bits in common use.	
Learning aim B: Fit and maintain tack and equipment for the comfort and safety of horses		B.D2 Justify how the tack and equipment fitted meets the purpose, comfort and safety needs of the horse and rider.
B.P3 Demonstrate how to correctly fit horse tack and equipment. B.P4 Discuss condition and fit of tack and equipment used.	B.M2 Demonstrate how to confidently fit horse tack and equipment. B.M3 Assess how the tack and equipment meets the comfort and safety needs of the horse and rider.	
Learning aim C: Select, fit and maintain horse rugs to support the health and welfare of horses		C.D3 Evaluate the need to rug horses with consideration to comfort, welfare and available facilities.
C.P5 Demonstrate how to correctly fit, remove and store rugs. C.P6 Explain the purpose of rugs used and the effect on the horses.	C.M4 Demonstrate how to confidently fit, remove and store rugs. C.M5 Analyse the purpose and condition of rugs used, and the effect on the horses.	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aims: B and C (B.P3, B.P4, C.P5, C.P6, B.M2, B.M3, C.M4, C.M5, B.D2, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- well-mannered horses for tacking up and fitting rugs
- PPE, BSI standard hat, boots, gloves
- snaffle bridle and nosebands, to include cavesson, flash, grackle variations, drop, crank; modern designs, e.g. Micklem multibridle
- horse bits – snaffle, pelham, gag, double, bitless, e.g. hackamore
- types of rein, e.g. plain, rubber, continental web
- modern bitless bridles, e.g. cross-under, side-pull
- martingales, to include running and standing, hunting breastplate
- general-purpose saddle, jumping, dressage; stirrup irons, e.g. Fillis, safety, bent leg, girths, to include elasticated, humane, synthetic waffle, contoured, cotton standard
- boots in everyday use, e.g. brushing boots of different style, overreach boots, tendon boots
- exercise sheets, numnahs and saddlecloths
- types of rugs, including heavy/medium/lightweight turnout rugs, fly sheets, coolers, fleece rugs, summer sheets, stable rugs, under rugs and blankets
- fly masks, nets and bonnets, anti-rub vests, hoods, surcingles, fillet strings, leg straps.

Essential information for assessment decisions

Learning aim A

For distinction standard, learners must investigate and examine thoroughly the pressure points caused by nosebands, martingales and horse bit design. They must consider the training of horses using negative reinforcement, the advantages and disadvantages of causing pressure points and think about pain indicators when these items of tack and equipment are in use. Where possible, learners should suggest alternative types of equipment or further training to prevent impact on horse welfare.

For merit standard, learners must make a methodical and detailed examination of the interrelationship between the action of nosebands, martingales and horse bits in common use and the reasons why riders choose to use them. Learners must show that they fully understand the wide-ranging physical and mental effects that tack and equipment have on horses.

For pass standard, learners must clearly and comprehensively detail the reasons why nosebands, martingales and horse bits are used. Learners must cover the five families of horse bit and all the nosebands and martingales mentioned in the unit content. Learners will identify the points of pressure on the horse and how the action of using negative reinforcement (the removal of pressure) makes the nosebands, martingales and horse bits work when correctly fitted.

Learning aims B and C

For distinction standard, learners must tack up two different horses to at least merit standard. Learners must review thoroughly the horses' tack and equipment and give reasons why it is suitable for those horses. Learners should focus on the purpose, comfort and safety of the tack and equipment in daily use, not the temperament and character of the horse. For example, why the horse has a single-jointed loose ring snaffle, or a rubber mullen mouth snaffle, the advantage of rubber reins, or open-fronted tendon boots.

Learners must meet the practical element of rugging horses to at least merit standard. They will give a clear and detailed rationale for the need to rug the horses, including the advantages and disadvantages in view of comfort, welfare and available facilities. Learners should make decisions of best choice for a variety of situations and scenarios, treating each horse as an individual.

For merit standard, learners will tack up two different horses for daily exercise quickly, correctly and safely. Learners will adjust all tack and equipment efficiently to fit the horse as well as it can. Learners will make a detailed examination of the tack and equipment fitted to arrive at a conclusion on the level of comfort and safety the tack and equipment gives for both the horse and the rider.

Learners must carefully consider the fit and condition of every rug applied to the horses used. Learners will quickly and efficiently adjust the rugs to fit as well as possible and will identify the likely issues the rugs may cause. Learners will conclude whether the rugs used will impact the horses' welfare. Learners will store and provide afteruse care of rugs competently.

Learners will provide a methodical and detailed examination of whether rugging horses is necessary. Learners must take into account seasonal changes and weather fluctuations, available shelter, breed and type of horse, age and condition of horse and current level of work/grooming.

For pass standard, learners will tack up two different horses for daily exercise. Evidence might be gathered while tacking up for a riding lesson or hacking. Learners should fit the horses' usual tack correctly, it should include a snaffle bridle, martingale or hunting breastplate, a general-purpose saddle with either a numnah or a saddlecloth and the horses' everyday brushing boots. The tack should be different for each horse to ensure a wider tacking-up experience for learners. Learners will adjust the tack and equipment to fit the horse as well as it can and discuss with the teacher any issues of fit identified. Learners will examine the tack and equipment while fitting it and comment on its condition, highlighting any areas for concern. Photographs and observation records completed by the teacher should evidence practical activities.

Learners must apply and fit correctly a selection of indoor and outdoor rugs, covering all of the unit content. They must recognise whether the rugs fit well enough to be worn by the horses used. Learners must correctly remove rugs from horses and show how to hang them up to dry, adjusting straps and fittings so they do not break when handled off the horse. Learners will carry out daily care of dry rugs and show how their equestrian establishment stores rugs.

Learners will detail clearly why the horses are rugged, they will examine factors that must be considered before deciding to rug, including time of year, condition of horse, shelter available, breed of horse and current level of work/grooming. Learners will comment on rugging scenarios and requirements throughout the year, for example fly rugs, rain sheets and full hoods. They will detail the effect of rugging on horses' bodies, including overheating, rubs, accidents and injury, and give reasons and the circumstances for not using rugs.

Links to other units

This unit links to:

- Unit 6: Equine Health and Husbandry
- Unit 7: Preparation and Presentation for Competition Disciplines
- Unit 12: Schooling Horses on the Flat
- Unit 15: Riding Horses in the Open
- Unit 16: Ground Poles and Gridwork for Horses
- Unit 17: Showjumping and Cross-country Courses
- Unit 19: Working Horses from the Ground
- Unit 20: Introduction to Equestrian Coaching.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- observation during work experience
- support from local equine-business staff as mentors.

Unit 6: Equine Health and Husbandry

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners undertake the daily management tasks involved in maintaining equine welfare, including maintaining accommodation, feeding, health checks, grooming and clipping.

Unit introduction

The equine industry employs a large number of people in a wide variety of roles. Central to many of these roles is an understanding of equine health and husbandry needs, along with the ability to carry out the daily tasks involved in maintaining good equine health and welfare in an efficient and effective manner.

In this unit, you will learn how to perform health checks through the recognition of the indicators of good health, how to manage common equine illness and injury, and the procedures involved in the daily management of equine health. You will gain the knowledge, understanding, skills and behaviours required to maintain a safe and suitable equine environment, this includes working independently, and as part of a team, to manage equine health, welfare and performance. This unit will help you develop practical skills in equine handling, bandaging, moving, clipping and grooming. To complete the assessment task within this unit, you will need to draw on your learning from across your programme.

This unit will support progression into working in the equine industry in many roles, including working as a stable hand, groom or assistant yard manager.

Learning aims

In this unit you will:

- A** Explore management procedures to safely promote the health and safety of equines
- B** Carry out the daily management activities required to support equine health
- C** Handle, groom and clip equines to support their health and welfare.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Explore management procedures to safely promote the health and safety of equines	A1 Health and safety A2 Equine health indicators A3 Equine illness and injury	Demonstration and discussion of practical health checks with teacher observations and witness statements. Case study/report on health management in equine illness and injury.
B Carry out the daily management activities required to support equine health	B1 Maintaining equine accommodation B2 Feeding and watering	Practical portfolio of evidence, including visual evidence, witness statements and teacher observations of learners carrying out husbandry tasks, i.e. daily management, handling, clipping, grooming and hoof care. Report on the safe use of equipment and techniques.
C Handle, groom and clip equines to support their health and welfare	C1 Equine handling C2 Grooming and hoof care C3 Clipping	

Content

Learning aim A: Explore management procedures to safely promote the health and safety of equines

A1 Health and safety

- Personal health and safety:
 - correct fit and use of personal protective equipment (PPE) – hat, boots, gloves, jodhpurs, body protectors, clothing for working safely
 - manual handling and lifting techniques
 - identification of difficult temperaments.
- Checks of fencing, enclosures and fields for potential safety hazards, e.g. poisonous plants, sharp objects, fire risks.
- Hygiene procedures to prevent disease transmission, e.g. hand washing, quarantine and disinfection processes, one-to-one husbandry for infected equines.
- Completing and complying with risk assessments and hazard reduction documentation.
- Procedures following an incident involving handlers, equines or both, to include:
 - first-aid priorities; injury, accident and disease reporting procedures; breakout of fire; preparation for evacuation in the event of an emergency.

A2 Equine health indicators

Recognising and practical appraisal of factors that demonstrate good and poor equine health at different life stages, to include:

- normal ranges and correct methods of measuring temperature, pulse and respiration rates at rest, e.g. use of digital rectal thermometers
- fat coverage using body condition scoring methods
- normal posture at rest, e.g. alertness, normal weight distribution
- soundness when trotting up, e.g. gait, lameness
- condition of ears, eyes, nose, mouth, teeth, mucous membranes, limbs, genitals, anus
- coat condition, presence of lumps/bumps
- volume, colour and frequency of urination
- faecal consistency and colour
- levels of appetite and thirst
- normal individual behaviour, temperament and vocalisation.

A3 Equine illness and injury

Recognising the causes and effects of equine illness and injury, and the practical application of appropriate first-aid treatment to injuries.

- Signs and standard health checks for diseases and disorders, to include strangles, mudfever and rainscald, equine influenza, upper respiratory tract problems, ringworm, laminitis, equine grass sickness.
- Signs, administering preventative measures and methods of confirming parasite infestations, to include fly strike and worms, e.g. strongyles, ascarids (roundworms), tapeworm.
- Factors leading to common causes of lameness:
 - foot problems, e.g. hoof cracks, lost shoes/poor shoeing, navicular syndrome
 - lower leg problems, e.g. strains and sprains.
- Recognising different injury types and potential causes, to include bruises, incision and puncture wounds, lacerations, galls, grazes.
- Methods to stop bleeding, prevent infection and encourage healing using an equine first-aid kit, to include wound bathing, dressing and basic bandaging, poulticing, cold hosing.
- Application of stable bandages to prevent filled legs, for protection, to secure wound dressings, as a base for bandages higher up, e.g. knee or hock bandages.

Learning aim B: Carry out the daily management activities required to support equine health

B1 Maintaining equine accommodation

Purposes and use of materials, equipment and methods to maintain equine accommodation, to include:

- bedding:
 - types of bedding, e.g. straw, shavings, rubber matting
 - bedding systems, e.g. complete muck out, deep litter, skipping
- cleaning and disinfecting accommodation:
 - safe use of chemical cleaners
 - sweeping and raking
 - yard maintenance
 - field clearing.

B2 Feeding and watering

Practical use of equipment and techniques to allow appropriate access to feed and water in both stable and field accommodation.

- Preparation and weighing of feeds, e.g. concentrates, mixes, forage.
- Positioning and use of feed containers, to include hay nets, over-door bucket holders, water buckets and salt blocks.
- Daily inspections of suitability and condition of equipment and grassland.

Learning aim C: Handle, groom and clip equines to support their health and welfare

Practical use of appropriate techniques and equipment, which may be used for equine handling and care tasks.

C1 Equine handling

Techniques and equipment used to safely handle horses.

- Approaching with care and mindfulness of the impact of sight and sound.
- Assessment of horse body language.
- Handling techniques used.
- Awareness of surroundings, other animals and people.
- Use of appropriate equine handling and restraint techniques and equipment, e.g. head collars, lead reins, holding up legs.

C2 Grooming and hoof care

Advantages, disadvantages and appropriate selection and use of equipment and techniques, including differences in requirements for stabled and grass-kept equines.

- Reasons for grooming, including cleanliness, circulation, bonding, massage, checking for parasites, new lumps, swelling after exercise or rubs from tack.
- Grooming kit components.
- Assessment of grooming, preparation for and application of grooming techniques, full groom procedure, quartering.
- Bathing techniques, e.g. hosing down, use of shampoo, coat shine and conditioner.
- Trimming, e.g. ears, whiskers, feathers, tail; when not to trim, e.g. breed standards, welfare.
- Mane and tail care, including pulling, stripping, laying mane and plaiting tail for cleanliness.
- Consideration of appropriate methods to maintain human safety and equine welfare.

C3 Clipping

When and why to clip and practical clipping procedures.

- Reasons for clipping, including:
 - time of year, including traditional practice and summer clipping, e.g. sport horses; clipping re-growth
 - health and welfare, e.g. Cushing's disease, parasite infestation such as leg mites
 - reduces heavy sweating, ease of care of working horses in the winter
 - types of clip including full, hunter, trace, chaser, blanket, bib.
- PPE including overalls, safety glasses, appropriate footwear.
- Practical clipping, use of assistants, assembly of clippers, maintenance of clippers during and after clipping, safety precautions, horse handling and methods of restraint, horse aftercare, e.g. additional rugs, hot clothing, solarium.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Explore management procedures to safely promote the health and safety of equines		A.D1 Justify decisions made involving health management issues in complex situations.
A.P1 Perform equine health checks correctly in straightforward contexts. A.P2 Explain equine health management issues.	A.M1 Assess equine health management issues efficiently in a variety of situations.	
Learning aim B: Carry out the daily management activities required to support equine health		B.D2 Justify the selection and use of equipment and techniques for daily management tasks that provide suitable equine environments and support equine health and welfare. C.D3 Justify handling, grooming and clipping decisions in different situations to support equine health and welfare.
B.P3 Demonstrate safe equine daily management practices to meet welfare needs. B.P4 Explain daily management practices required to support equine health	B.M2 Demonstrate efficient equine daily management to meet welfare needs. B.M3 Analyse how daily management tasks support equine welfare.	
Learning aim C: Handle, groom and clip equines to support their health and welfare		
C.P5 Perform safe handling of equines using appropriate equipment and techniques for full grooming and clipping of horses C.P6 Explain how to correctly clip and full groom horses	C.M4 Perform efficient application of techniques and equipment in equine handling, grooming and clipping to support health and welfare. C.M5 Assess how correct grooming and clipping routines support equine welfare.	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aims: B and C (B.P3, B.P4, C.P5, C.P6, B.M2, B.M3, C.M4, C.M5, B.D2, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- a variety of equines with different temperaments and health issues
- basic handling equipment such as head collars and lead ropes
- different types of bedding substrate
- full grooming kits, including strapping pads, wisps
- hot water resources for bathing horses, animal shampoo and conditioner
- basic plaiting equipment
- suitable clipping area, non-slip and brightly lit, clippers, extension lead and circuit breaker.

Essential information for assessment decisions

Learning aim A

For distinction standard, learners will demonstrate thoroughness in hands-on health checks and carry them out on two complex equines, such as those known to be more difficult in temperament, or with known health problems that complicate interpretation of standard health indicators. In discussion with teachers, learners will articulate well-reasoned conclusions regarding the purpose of each of the health checks they carry out and their judgement of the health situation of the equine.

Learners' written work will be detailed, with a wide range of factors considered when approaching aspects of how injury and illness can be managed. They will provide clear reasoning for their choices of health management strategies, in terms of advantages or disadvantages of the methods and equipment they select, in a coherent and logical fashion.

For merit standard, learners will perform more detailed health checks on two equines that are less easy to handle or whose health/life status may affect the interpretation of health indicators. With teachers, learners will discuss how the checks they perform are linked to the signs and symptoms of less obvious injury or illness.

In their case studies, learners will approach the health management strategies of injury and illness with consideration of how the overall health of the individual is affected. They will also consider the impact of the health management strategies on other handlers and equines who come into contact with the affected animal.

For pass standard, learners must correctly perform basic health checks on two equines that are easy to handle and have straightforward health requirements. In discussion with teachers, they must correctly communicate the health situation of the equines and give reasons for their conclusions.

In the given case studies, they will identify obvious injuries and illness, correctly detailing stages, techniques and equipment in appropriate health management strategies.

Learning aims B and C

For the purposes of assessment, reference in the following to 'husbandry' includes those activities specified in the content, i.e. maintenance of equine accommodation, equine feeding and watering, and equine handling, grooming, clipping and hoof care.

For distinction standard, learners will demonstrate safe and effective use of equipment and techniques to carry out husbandry tasks. They will do this with a confidence that is clearly based on extensive underpinning knowledge and understanding of best practice in equine husbandry. Learners will demonstrate skilled equine handling before, during and after husbandry tasks, coordinating team help as necessary. They will consistently behave in a manner that promotes high standards of equine welfare and wellbeing, both independently and as part of a team. They must justify their use of equipment, materials and methods, giving advantages and disadvantages of their use and suggesting alternatives where appropriate.

For merit standard, learners will use time and resources without excessive waste to safely carry out husbandry tasks. They must work autonomously in a team environment. Learners will safely handle two equines before, during and after routine husbandry tasks, including full grooming procedures. Learners must evidence they have independently completed one full, hunter or blanket clip, including preparation of the clipping area, maintenance of the clippers throughout the process and aftercare of the horse. They will show that they have taken steps to minimise risks to handlers and equines through preparing for and anticipating potential problems that may occur during these tasks. Learners will consider the factors involved in the selection and use of equipment, techniques and resources for efficient working.

For pass standard, learners must demonstrate the correct selection and application of PPE appropriate to the tasks or handling they are carrying out. They will behave appropriately to maintain the health and safety of themselves and others, including the correct storage of equipment and materials, demonstrating an awareness of their roles and responsibilities as the member of a team. Learners will use appropriate equine handling techniques to minimise stress. They will demonstrate the correct use of basic equipment and techniques to carry out routine husbandry tasks as specified in the unit content, for example full grooming routines. Learners must evidence practical experience of clipping horses, this may be a contribution to horse clipping in a focused area, or a bib clip.

In written accounts learners will give reasons for their choices of equipment and techniques used to carry out husbandry and grooming tasks.

Links to other units

The assessment for this unit should draw on knowledge, understanding and skills developed from:

- Unit 1: Equine Structure, Form and Function
- Unit 2: Equine Diet and Nutrition
- Unit 4: Work Experience in the Equine Sector
- Unit 5: Horse Tack, Equipment and Rugs
- Unit 7: Preparation and Presentation for Competition Disciplines.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- observation during work experience
- support from local equine business staff as mentors.

Unit 7: Preparation and Presentation for Competition Disciplines

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners develop the skills needed when working as a competition groom for different equine sporting disciplines and post-competition care to optimise horse health and welfare.

Unit introduction

The equine sporting industry requires employees who are efficient and able to demonstrate high standards of horse turnout. Sporting disciplines may include competitions such as eventing, dressage, showjumping or showing.

In this unit, you will investigate the requirements of pre-competition preparations, including transportation, selection of tack and equipment, grooming, bathing and plaiting. You will develop an understanding of the importance of post-competition care, including exercise, transport, tack, rugs and auxiliary equipment. You will need to think about ways to promote equine health and welfare, the legal requirements of transportation and health and safety.

This unit will prepare you for employment or apprenticeship opportunities in the equine industry such as competition grooming, or it will help you progress to higher education.

Learning aims

In this unit you will:

- A** Understand horse and rider turnout requirements for competitive sporting disciplines
- B** Carry out pre-competition preparation for competition horses
- C** Undertake the preparation of horses and vehicles for transportation.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Understand horse and rider turnout requirements for competitive sporting disciplines	A1 Tack, equipment and transportation method A2 Pre-competition preparation A3 Competition procedure and aftercare	A report on the rules and regulations of tack and equipment at equine competitions, and the preparation, management and aftercare on a competition day.
B Carry out pre-competition preparation for competition horses	B1 Grooming and presentation of horses B2 Selecting and fitting competition tack B3 Selecting and fitting protective equipment	A portfolio evidencing practical skills of correct care and preparation of competition horses, including selecting and fitting tack, auxiliary equipment, bandages and boots. Practical transportation activities will be carried out, supported by photographic evidence, witness statements and/or observation records.
C Undertake the preparation of horses and vehicles for transportation	C1 Preparation of transportation vehicle C2 Preparation of horses for travelling C3 Loading and unloading horses safely C4 Maintenance of horse transportation vehicles	

Content

Learning aim A: Understand horse and rider turnout requirements for competitive sporting disciplines

A1 Tack, equipment and transportation method

Factors that influence the selection of tack, equipment and methods of horse transportation.

- Tack and equipment rules, e.g. British Showjumping (BS), British Dressage (BD), British Eventing (BE); discipline trends, requirements and capability of horse and rider, horse welfare.
- Selection of tack, boots, bandages and travel equipment:
 - comfort and fit of boots and bandages, waterlogging, overheating tendons during hard work, restriction of movement due to design of boot, discomfort due to poor design of boot, rubs from movement of boot, dirt between boot and skin
 - comfort and fit of tack, cost of tack and equipment, tradition, trends, design, e.g. Micklem bridle, Fairfax performance girth.
 - horses' temperaments, e.g. sensitivity and nervousness
 - environment and weather.
- Selection of method of transportation:
 - trailer and towing vehicle, HGV/non-HGV horsebox
 - cost of purchase and running
 - forward facing, backward facing, herringbone.

A2 Pre-competition preparation

- Planning the competition day, time management:
 - preparation of tack and equipment, to include tack cleaning, safety checks, boots/bandages, tail guard, rugs, food, water, grooming kit
 - checklist loading of tack and equipment, to include rider clothing, e.g. hat, jacket, jodhpurs, riding boots, back protector, first-aid kit, documentations
 - transport, to include lorry/trailer checks, e.g. fuel, oil, water, flooring, hitch, safety checks, journey and timescale, e.g. location, timings
 - preparation of horse, including washing, grooming and plaiting.
- Consideration of the legal and welfare requirements when transporting horses:
 - Welfare of Animals During Transport (2007), Equine Industry Welfare Guidelines Compendium, watering, feeding, opportunities to rest, health of the horse, documentation
 - regulations for driver and accompanying personnel, including economic/non-economic activity, driver hours, operator licensing, transport to or from veterinary practices, journey times, competency of the handlers, certificates of competence, authorisation, contingency plans, journey log, trailer test
 - transport legislation, including design of the vehicle, heavy goods vehicle (HGV)/non-HGV and trailers, space allowances, temperature limits, partitions, weight limits, Equine Industry Welfare Guidelines Compendium.
- Method of transportation, and its effect on horse stress:
 - trailer and towing vehicle, HGV/non-HGV horsebox
 - forward facing, backward facing, herringbone.

A3 Competition procedure and aftercare

- Handling and restraint of horses when in a new environment, including behaviour of horse, safety measures and useful equipment.
- Rider preparation, to include checking into secretary box, collecting number, course walking, correct dress etiquette according to discipline, e.g. hat, hair net, boots, back protector.
- Horse preparation, to include grooming, finishing touches, e.g. quarter markers, hoof oil, wiping over, fitting of tack and equipment, preparation for warm-up.

- Additional requirements, e.g. safety aspects such as leaving horses unattended, personal belongings and valuables, adverse weather, overnight stabling needs.
- Immediate and long-term aftercare, with consideration of health and welfare, to include walking, cooling procedures, removal of tack, washing off, health checks, leg treatments and bandaging, rehydration, rest periods, day off, further health checks.
- Checks and replenishments, e.g. first-aid kit, health products.
- Aftercare of tack and equipment, to include cleaning and storage.
- Aftercare of transport, e.g. disinfecting, disease control, maintenance checks.
- Record keeping, e.g. competition records update.

Learning aim B: Carry out pre-competition preparation for competition horses

B1 Grooming and presentation of horses

- Grooming requirements for specific disciplines and breeds, including natural mane and feathers, quarter marker styles.
- Initial assessment of horse, to ensure correct approach:
 - horse temperament and body language, e.g. calm, nervous, position of ears
 - assessment of health indicators, e.g. eyes, nose, bodyweight, gait and demeanour.
- Assessment of coat and mane type and equipment needed to carry out grooming and bathing safely and effectively.
- Selection and use of grooming and bathing equipment, including brushes, scissors, hoof pick, shampoo, conditioner.
- Horse bathing techniques, with consideration of health and safety and horse welfare.
- Drying methods after being bathed, including removing excess water, use of rugs.
- Plaiting techniques, mane and tail, e.g. raised tail plaits, size of mane rosettes, bands and thread.

B2 Selecting and fitting competition tack

Fitting of tack and equipment, evaluation of fit, importance of correct fit, to include:

- competition legal bridles with appropriate noseband to include cavesson, flash, drop, grackles
- types of rein, to include plain, plaited, rubber, half rubber, continental web, laced
- bits allowed in specific competition disciplines
- double bridles
- types of breastplates/breast girths and martingales, to include five-point breastplate, hunting breastplate, breast girths, running martingale, standing martingale, bib martingale, Irish martingale
- specialist tack, e.g. overgirths, training aids used in warm-up
- types of saddles and girths:
 - dressage, jumping, close contact
 - girths, to include elasticated, humane, synthetic waffle, contoured, stud, cotton standard
 - numnahs, saddle cloths, tombstone pads
- assessment of condition of tack and equipment to meet health and safety needs of rider, and welfare of horse.

B3 Selecting and fitting protective equipment

- Correct application and fitting of boots and bandages to prevent accident and/or injury, including different types of padding, e.g. fibregee, Gamgee, modern leg wraps.
- Safe working practices, identifying hazards, minimising risks, using personal protective equipment (PPE).
- Correct and timely application of travel, fleece/polo wraps and exercise bandages, direction to wrap bandages around the leg.
- Correct and timely application of boots, to include brushing boots, tendon boots, over reach boots, fetlock boots, cross-country boots.

Learning aim C: Undertake the preparation of horses and vehicles for transportation

C1 Preparation of transportation vehicle

Preparation for loading horses into either a horsebox or trailer with towing vehicle:

- vehicle checks and roadworthiness, to include fuel, oil, water, lights, brakes, tyres
- flooring, safety checks, bedding, e.g. straw, shavings, wood-pulp pellets, haynets, provision of water
- hitch, partitions, use of assistants
- storage of tack and equipment.

C2 Preparation of horses for travelling

Factors to consider when preparing horses for transportation, including weather and temperature.

- Risk assessment:
 - loading and unloading horses, timings of journeys, location and route planning, health and safety, breaks within the journey.
- Selecting of tack, equipment and clothing for travelling:
 - bandages for travel, travel boots, knee boots, hock boots, poll guard, tail guard/bandage, appropriate rug.
- Fitting of tack, equipment and clothing for travelling:
 - evaluation of fit, importance of correct fit, consequences of ill-fitting tack.

C3 Loading and unloading horses safely

- Siting of trailer or lorry for safe loading/unloading.
- Dealing with reluctant horses and understanding the causes of reluctance:
 - use of assistants, to include lunge lines, retraining of difficult loaders, causes of reluctant loading, e.g. road conditions, driving styles, driving speed.

C4 Maintenance of horse transportation vehicles

- Importance of trailer servicing – lifespan and value, annual service, walk-around checks, including electronic connections, jockey wheel, mirrors, breakaway cable, reflectors, lights, wheels and tyres, spare wheel.
- Importance of horsebox servicing – annual service, Driver and Vehicle Standards Agency (DVSA, walk-around checks, including handbrake, footbrake, reflectors, wheels and tyres, suspension, oil leaks, headlights.
- Regular general maintenance – parking, chocks, damp bedding, power washing, rubber matting, hinges and fastenings, rust, greasing towball.
- Cleaning vehicles, muck out after every journey, disinfecting, drying.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand horse and rider turnout requirements for competitive sporting disciplines		A.D1 Evaluate the impact of the groom on horse and rider turnout for competitive sporting disciplines.
A.P1 Explain affiliated competition types, expectations, rules and regulations. A.P2 Explain the procedures to be followed for pre-competition day preparation, on competition day, and post-competition aftercare requirements.	A.M1 Analyse how competition rules and regulations affect grooming duties for specified sporting disciplines.	
Learning aim B: Carry out pre-competition preparation for competition horses		B.D2 Demonstrate, in a time-efficient manner, the preparation and presentation of horses to affiliated competition standard. C.D3 Evaluate the effectiveness of own approaches to loading and unloading reluctant horses while maintaining a safe working environment and considering the horses' welfare at all times.
B.P3 Demonstrate the complete preparation of one horse for a jumping discipline. B.P4 Demonstrate the complete preparation of one horse for a flatwork discipline warm-up.	B.M2 Demonstrate a high level of presentation for two competition disciplines.	
Learning aim C: Undertake the preparation of horses and vehicles for transportation		
C.P5 Perform safe loading routines of horses on to transportation vehicles. C.P6 Explain own procedures for loading routines.	C.M3 Perform safe techniques for loading and unloading reluctant horses. C.M4 Assess the impact of own loading routines on horse welfare.	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aims: B and C (B.P3, B.P4, C.P5, C.P6, B.M2, C.M3, C.M4, B.D2, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- horses (of varying temperaments and types)
- snaffle bridles with appropriate noseband (cavesson, flash, drop, grackles), double bridles, common bits in general use, types of rein (plain, plaited, rubber, half rubber, continental web, laced), five-point breastplate, hunting breastplate, breast girths, running martingale, standing martingale, bib martingale, Irish martingale, specialist tack, e.g. over girths, training aids
- saddles (dressage, jumping, close contact), girths (elasticated, humane, synthetic waffle, contoured, stud, cotton standard), stirrup irons (Fillis, safety, bent leg)
- exercise and fleece bandages, fibregee, Gamgee, modern leg wraps, brushing boots, tendon boots, over-reach boots, fetlock boots, cross-country boots
- horse lorry or vehicle and trailer in good working order, haynets, water containers, variety of bedding material, teacher qualified to drive transportation vehicle, lunge lines
- bandages for travel, travel boots, knee boots, hock boots, poll guard, tail guard, appropriate rugs
- grooming equipment, e.g. brushes, combs, hoof pick, scissors, plaiting bands, plaiting thread, quarter markers.

Essential information for assessment decisions

Learning aim A

For distinction standard, learners must consider carefully the significance of competent grooming skills and suggest alternative actions where skills might be limited or not required, for example not plaiting or employing someone to accompany the rider for safety in case of an accident. Learners can use examples of riders grooming for themselves at affiliated competitions and investigate under what circumstances it becomes necessary to employ a competition groom.

For merit standard, learners must demonstrate a thorough understanding of the governing bodies' expectations. They must consider how rules, regulations and expectations impact on the duties of a competition groom. Learners must show they understand grooming duties by examining how the sporting discipline impacts on their pre-competition preparation, the assistance of the rider and care of the horse on the competition day and the immediate and long-term aftercare of the horse, tack, equipment and transportation.

For pass standard, learners will select one flatwork discipline, for example dressage or showing, and one jumping discipline, for example showjumping, or showing working hunters. British Eventing can be used for both the dressage and the jumping phases. Learners must introduce the discipline with a clearly detailed summary of the competitive levels, presentation expectations and the tack and equipment rules and regulations. Learners should include illustrations to support their written work.

Learners must clearly and logically detail the necessary tasks of a competition groom. They will examine in detail all elements of preparing for their chosen competitions, including preparation of the horse leading up to the event, writing a checklist and packing the lorry. Learners must also examine thoroughly the grooming duties required during the competition day and the immediate and long-term aftercare of the horse, tack, equipment and transportation.

Learning aims B and C

For distinction standard, learners will perform the grooming, bathing, plaiting and tacking-up tasks to affiliated competition standard. Tasks will be completed quickly, efficiently and independently. Horses will be clean, the correct number of plaits will have been stitched (not rubber bands), tack will have been fitted correctly and quickly and will be cleaned to competition turnout standard.

Learners will articulate clearly the effect of their own performance when loading and unloading reluctant horses. Learners must consider in depth the strengths and weaknesses of their actions when undertaking loading routines, including preparation of the vehicle and horse, and how these effected loading. Learners will offer alternative actions where necessary, supported by evidence of knowledge of current good practice by equine behaviourists.

For merit standard, learners will perform the practical preparation tasks to affiliated competition standard but may still be a little slow when plaiting, bathing or tacking up. Plaits must be neat and secure, using either rubber bands or thread.

Learners will load and unload at least two horses that show reluctance to load. Learners will site the transportation vehicle in an appropriate place, identifying the possible causes for reluctant loading and use assistants where necessary. Learners will demonstrate good organisation and communication skills throughout the task, and clearly show high awareness of health and safety requirements. Learners will carefully consider how their own performance has impacted on the horse's mental and physical welfare. Careful consideration should be given to horse behaviour during preparation of the horse area, for example how light the internal space is, the angle of the ramp and the situation of the transportation vehicle. Learners will also consider the effect of the clothing and equipment they have fitted, for example travel boots or bandages and the effectiveness of the method of restraint (head collar or bridle).

For pass standard, learners must prepare two different horses for specified disciplines. The horses must be prepared and presented for inspection to industry standard. One horse must be presented for showing or dressage at a level that requires a double bridle, this horse must wear bandages as if it were about to warm-up for a competition. The other horse must be prepared for a specified jump discipline, which can include the cross-country phase in British Eventing, and must wear a full set of appropriate boots. Learners must groom, bathe where necessary, and plait the mane and the tail. At least one horse must be plaited. They must select and fit tack and equipment permitted within governing body rules. Learners will comment on the condition and fit of the tack and equipment used.

Learners must perform basic safety checks on the transportation vehicle available to them. They must prepare the horse area for loading for the given situation, this might include loading several horses on a competition day. Learners must prepare each horse for transport, demonstrating how to fit suitable protective clothing and equipment. Consideration must be given to horses' temperaments, the time of year and length of journey. Learners must safely load and unload at least two calm, trained horses. Learners may use and direct others to assist them where necessary, for example closing the breach bar or shutting the ramp. Witness statements, observation reports, photographs and/or video should be included. Learners will give reasons for all the procedures they carried out throughout the loading routines task and give reasons for their actions. They will show they understand how their actions are linked to maintaining the physical and mental welfare of the horse.

Links to other units

This unit links to:

- Unit 5: Horse Tack, Equipment and Rugs
- Unit 6: Equine Health and Husbandry
- Unit 12: Schooling Horses on the Flat
- Unit 17: Show Jumping and Cross-country Courses.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- observation during work experience
- support from local equine business staff as mentors.

Unit 8: Equine Behaviour

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners observe behaviours and make recommendations on equine behaviour based on the study of evolution, natural behaviours and domestication of equines.

Unit introduction

You may think of a horse as a domestic animal but this is a relatively recent concept as horses and other equines have evolved over millions of years as a herd animal. To work effectively with domesticated horses it is important to observe their behaviour and to know what causes it. In this unit, you will develop the essential skills of recognising and interpreting equine behaviour, and understanding how evolutionary behaviours can result in modern behaviour problems.

By examining the evolutionary and domestication history of the horse you will discover how the range of modern breeds has developed and how horses are still affected by instinctive desires to carry out specific behaviours. You will learn to recognise and interpret a range of equine communication methods and investigate the different ways that equines can learn. This knowledge will help you to understand how and why equine behavioural problems happen and how they can be treated or prevented.

The knowledge and understanding you gain from studying this unit are essential if you want to progress directly to equine-related employment, to an apprenticeship, or to a higher education course such as equine science/animal behaviour or equine veterinary nursing, then.

Learning aims

In this unit you will:

- A** Understand the evolution and domestication of equines to help interpret how they communicate
- B** Examine the relationship between natural equine behaviour and equine learning in a domesticated context
- C** Carry out investigative observations of equine behaviour to support the management of their health and welfare.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Understand the evolution and domestication of equines to help interpret how they communicate	A1 Equine evolution and domestication A2 Interpreting equine behavioural cues	A report on how equine behaviour is interpreted in relation to evolution and domestication.
B Examine the relationship between natural equine behaviour and equine learning in a domesticated context	B1 How equines learn B2 The impact of environmental perception on equine behaviour B3 The impact of domestication on equine lifestyle B4 Equine behaviours B5 Types and causes of abnormal behaviours	Behavioural observations of three equines using suitable behavioural sampling techniques such as completion of ethograms and a time budget of the observations. A report on the causes, prevention and treatment of abnormal behaviours, based on the observations.
C Carry out investigative observations of equine behaviour to support the management of their health and welfare	C1 Observing equine behaviour C2 Treatment and prevention of abnormal behaviour	

Content

Learning aim A: Understand the evolution and domestication of the horse to help interpret how equines communicate

A1 Equine evolution and domestication

The relationship between physical and behavioural equine characteristics, and environment and lifestyle at different evolutionary stages, including:

- Darwinian evolutionary theory, to include natural selection, survival of the fittest, speciation, descent with modification
- early evolutionary stages, including eohippus, miohippus, merychippus, pliohippus, equus
- primitive horse breeds, including Przewalski's horse, tarpan, tundra, forest horse
- domestication, to include how the horse was selected for human use, process of domestication, how the relationship between horses and people began. The period between 8000 and 2500 BC, with horses approximately 6000 years ago, with diversity in equine DNA as evidence base
- selective breeding for strength, speed, stamina, beauty, temperament, development of modern breeds, e.g. Irish sport horse, draught horses, Welsh section.

A2 Interpreting equine behavioural cues

Interpreting the subtle and more obvious communication signals of the horse vital to working effectively with any horse, to include:

- visual cues:
 - ear position, eye contact, nose and lips (including Flehmen response)
 - body position and head movements, tail position
 - speed of movement
- vocal cues – whinnying, snorting, neighing, squealing, nickering
- overall temperament, e.g. calm, excited, nervous, aggressive
- recognising and interpreting behaviours that indicate dominance, submission, aggression, play, fear and stress.

Learning aim B: Examine the relationship between natural equine behaviour and equine learning in a domesticated context

B1 How equines learn

Learning theories and their influence on behaviour modification training, to include:

- classical and operant conditioning through positive and negative rewards and positive and negative punishments, social learning, associative learning, latent learning, habituation, flooding and sensitisation.

B2 The impact of environmental perception on equine behaviour

Equine sensory interpretation of their environment and the effect of this on behaviour and learning in wild and domesticated breeds, to include:

- visual information – the location of eye, field of vision, depth perception and the blind spot
- how visual information impacts equine behaviour – the fight or flight response, eye contact and visual communication
- auditory information available to equines and how it impacts on behaviour, taking into account the ability to rotate ears, hearing ranges and sound sensitivity
- olfactory information available to equines and how it impacts on social and feeding behaviour
- tactile information available to equines and how it impacts on behaviour, including nuzzling, using muzzle and whiskers to gain information
- gustatory information available to equines and how it impacts on behaviour.

B3 The impact of domestication on equine lifestyle

- Differences in behaviour seen between horses in the wild and domesticated environments at different life stages, including youngsters, mating and bonding.
- Comparison of time budgets in wild and domestic horses.
- Factors that affect the lifestyle of the domestic horse and the impact they have on natural behaviours, including stabling, space availability, exercise provision, social interaction and isolation, access to feed and water, choice of diet.

B4 Equine behaviours

Types of equine behaviour and their significance in the context of the individual and the herd:

- social behaviours, including grooming, heard interactions and playing
- mating behaviours, including mate attraction and bonding
- feeding behaviours, including grazing and locating food, aggression
- fight or flight response.

B5 Types and causes of abnormal behaviours

Recognition and root causes of abnormal behaviours in stables and ridden horses triggered by social, locomotor and oral instincts.

- Causal factors and motivations for abnormal behaviours:
 - thwarted instinct to carry out natural behaviours
 - obtaining rewards – replacement behaviours and coping strategies
 - anxiety, stress, boredom
 - observational learning.
- Stereotypical behaviours, including social, locomotors and oral abnormalities, e.g. weaving, box walking, wind sucking, crib biting.
- Outline displacement behaviours, e.g. over-grooming, vocalisation.

Learning aim C: Carry out investigative observations of equine behaviour to support the management of their health and welfare

Observational monitoring, prevention and treatment of normal and abnormal behaviours.

C1 Observing equine behaviour

- Construction of an ethogram and interpretation of data from observations of equines either directly or via media technology.
- Types of sampling methods and strategies, including continuous, instantaneous, ad libitum, focal, scan and one-zero.
- Representing results of behaviour observations that include analysis of results and graphical representations.
- Ways of presenting results depending on audience, e.g. owners, public, veterinarians.
- Implications of results for an equine's welfare based on the prevalence of abnormal behaviours.

C2 Treatment and prevention of abnormal behaviour

Treatment and prevention methods for abnormal behaviours and evaluation of their welfare implications, to include:

- environmental management and enrichment
- changes to routine
- behavioural modification and trainings
- feeding changes
- behavioural training
- medical or pharmacological interventions.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand the evolution and domestication of equines to help interpret how they communicate		A.D1 Justify the interpretation of equine behaviour in light of evolutionary development and learned behaviour, making reasoned and valid judgements about how this has influenced modern-day equine communication.
A.P1 Explain the evolution and domestication of the horse from eohippus to the modern-day breeds. A.P2 Explain how modern-day equine breeds communicate.	A.M1 Analyse the relationships between evolution, domestication and equine communication and how this has contributed to the modern-day breed.	
Learning aim B: Examine the relationship between natural equine behaviour and equine learning in a domesticated context		BC.D2 Evaluate the extent to which equine behaviour is related to evolution, domestication and learning. BC.D3 Justify prevention and treatment strategies for abnormal equine behaviour used for managing welfare in complex situations.
B.P3 Explain methods of learning in domesticated horses and the impact this has on their behaviour. B.P4 Explain the impact of the equine perception of the environment and the effect this has on their behaviour.	B.M2 Assess how equine learning and behaviour has changed over time in relation to evolution and domestication.	
Learning aim C: Carry out investigative observations of equine behaviour to support the management of their health and welfare		
C.P5 Perform equine behavioural observations of normal and abnormal behaviours. C.P6 Explain the prevention and treatment of abnormal behaviours in relation to equine welfare.	C.M3 Analyse own equine behavioural observations in straightforward situations, making reasoned decisions for the prevention and treatment of abnormal behaviours in relation to equine welfare.	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aims: B and C (B.P3, B.P4, C.P5, C.P6, B.M2, C.M3, BC.D2, BC.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- horses for observation purposes, with significant behavioural differences observable
- digital recording devices, e.g. cameras, smartphones and tablets.

Essential information for assessment decisions

Learning aim A

For distinction standard, learners will provide reasoned evidence of the detailed process of evolution, making references to Darwinian theories and naming the key development and mutation timelines that have occurred in horses. Learners will give detailed descriptions of primitive horse breeds and how they differ from modern-day breeds with regard to physical traits, behavioural considerations and the selective pressures resulting in specific characteristics. Learners will use comprehensive evidence to effectively support their judgements on how modern-day equine behaviour and communication has been influenced by evolutionary development and learned behaviour. Learners' written work will be comprehensive and detailed.

For merit standard, learners will provide evidence interrogating the horse's evolutionary and domestication journey, making reference to how the modern-day horse has developed. Learners will relate the features of evolution, domestication and communication to one another, giving consideration to the selective pressures that have resulted in specific physical and behavioural characteristics. Learners will demonstrate an understanding of different types of equine behaviour and communication, along with their significance to equines and handlers. Learners' written work will be thorough and coherently structured.

For pass standard, learners must demonstrate their knowledge of the key stages of evolution that has taken place in modern-day horses, theorising on how and when domestication took place. Learners will make reference to each of the primitive horse breeds listed in the unit content and explain the selective pressures that result in specific characteristics at key stages. They will outline the purposes and methods of communication between individuals and herds. Learners' written work will be accurate and clear.

Learning aims B and C

For distinction standard, learners will clearly articulate how equines learn through discussion of the principles of learning theories. They will show comprehensive understanding of the influence of learning theories on equine behaviour modification training. Learners will make direct links to the impact that domestication and evolution has had on the behaviour of the horse, evaluating how the wild (primitive) horse differs from its modern-day ancestor. Learners will give reasoned arguments for the interpretation of how the horse responds to environmental stimuli, to include visual, auditory and olfactory sensory stimuli and the corresponding behaviours.

Learners will carry out behavioural observations of three equines, at least one of which will show a combination of abnormal behaviours. They will demonstrate their understanding of the root causes of abnormal behaviour in these cases and the impact of them on the welfare of the equine.

Learners must consider in detail the likelihood of these causes being addressed to prevent and treat the abnormal behaviours in the context of the work demands of the equine, and why they are suitable or unsuitable for the particular equines that have been observed. As an example, many of the options for preventing abnormal behaviours may not be suitable for competition horses that have strict routines and feeding and exercise requirements. Learners will produce strategies for practical treatment options that provide enrichment or training while ensuring the highest levels of welfare. Observations and written work carried out by learners will be comprehensive and detailed.

For merit standard, learners must demonstrate their knowledge of how equines learn, using at least three theories listed in the unit content. Through discussion of learning theories, learners must show how learning can impact behaviour and how behaviour can be modified through training. Learners should demonstrate an understanding of the impact that sensory stimuli/information has on behaviour. Learners must interpret how factors involved in domestication and evolution have developed behaviour in modern-day breeds.

Learners will carry out practical observations of at least three equines, using suitable behaviour observation sampling techniques such as the production of ethograms. At least two of the equines will show straightforward, individual abnormal behaviours as detailed in the unit content. They will articulate ways in which the occurrence of common abnormal behaviours is linked to thwarted natural behaviours, contextualising them to the observations they have carried out. Learners will differentiate between the normal and abnormal behaviours demonstrated by each of the equines. They will suggest suitable ways to prevent abnormal behaviours occurring in those equines behaving normally, and methods of treating the abnormal behaviours in the other equines observed. They will discuss how providing conditions for natural behaviours to take place is related to the welfare of the equine. Observations and written work produced by learners will be thorough and coherently structured.

For pass standard, learners must demonstrate knowledge of how equines learn, referencing at least three learning theories. They will consider the impact and influence these theories have on interpreting equine behaviour in modern-day breeds and on training methods used to modify behaviour. Learners must show understanding of the impact of sensory stimuli/information on the horse's behaviour, to include visual, auditory and olfactory stimuli and the associated behavioural responses. They will detail how aspects of modern, domesticated life have impacted on the horse's ability to carry out natural behaviours.

Learners will carry out practical behavioural observations of three equines using suitable techniques, such as production of ethograms. At least one of the equines observed will demonstrate a commonly-found, abnormal behaviour as detailed in the unit content. Learners will differentiate between the normal and abnormal behaviours demonstrated by each of the equines. They must examine the lifestyle factors affecting each equine and detail how they allow or prevent the animal from carrying out natural behaviours. Learners link the cause and effect of abnormal behaviours in the context of equine welfare and the prevention and treatment methods used. Observations and written work produced by learners will be accurate.

Links to other units

This unit links to:

- Unit 1: Equine Structure, Form and Function
- Unit 6: Equine Health and Husbandry.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- observation during work experience
- support from local equine-business staff as mentors.

Unit 9: Managing an Equine Yard

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners develop the skills and knowledge needed to manage an equine yard effectively and efficiently, including horses, staff and resources.

Unit introduction

The equine sector is broad, with a range of organisations from competition or stud yards, to leisure riding establishments and livery yards. Each organisation has a yard manager, the person responsible for ensuring that staff and horses are functioning efficiently, handling clients or customers and the day-to-day running of yard activities.

In this unit, you will learn how to manage an equine organisation successfully. You will learn about the impact of the standards and practices expected in the industry, and the importance of ensuring organisations are financially viable. You will explore the principles and impact of good customer service, along with the daily management activities necessary to ensure the smooth running of a yard, including the management of staff, horses, resources and accommodation. This unit will draw on knowledge gained throughout the qualification, particularly units relating to business and resource management, and equine husbandry. To complete the assessment task within this unit, you will need to draw on your learning from across your programme.

This unit will help to prepare you for supervisory roles in equine businesses, with a view to progressing to a career in yard management, or developing your own equine enterprise. You could choose to develop your skills in management through further study, such as a Higher National Diploma in Equine Management.

Learning aims

In this unit you will:

- A** Understand professional practices in equine yards and how they contribute to yard management
- B** Understand staff management and customer service in equine yards
- C** Investigate routine operations and duties in equine yard management.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Understand professional practices in equine yards and how they contribute to yard management	A1 Professional standards and legislation A2 Management practices	A report on standards and practices to be considered when operating an equine yard.
B Understand staff management and customer service in equine yards	B1 Role of the manager B2 Communication and customer service in an equine organisation	Portfolio of evidence investigating yard-management processes in a case study for a successful equine yard.
C Investigate routine operations and duties in equine yard management	C1 Managing horses C2 Maintaining horse records C3 Yard management	

Content

Learning aim A: Understand professional practices in equine yards and how they contribute to yard management

A1 Professional standards and legislation

Factors affecting operational standards and managerial responsibilities in equine organisations.

- Standard dress codes for different environments, weather and situations, to include:
 - riding
 - routine husbandry
 - competitions, including dressage, eventing, showjumping, driving and showing in-hand
 - examinations and tests in different disciplines.
- Health and safety requirements, including hats meeting British Standards Institution (BSI), Kitemark™ and Safety Equipment Institute (SEI) requirements, footwear, gloves, chaps, body protectors, no jewellery, spurs/whips, tied hair.
- Business operational legislation, including Animal Welfare Act 2006, Riding Establishments Act 1970, Animals Act 1971, Occupiers Liability Act 1984, Sale of Goods Act 1979, Health and Safety at Work etc. Act 1974.
- Employment legislation, including Employment Act 2008, National Minimum Wage Act 1998, the Working Time Regulations 1998, Equality Act 2010, Disclosure and Barring Service (DBS) checking.

A2 Management practices

- Processes for operating viable organisations, to include:
 - preparation and monitoring of budgets
 - income sources from sale of products and services, e.g. livery, riding lessons, stud fees
 - expenditure, e.g. staff costs, veterinary costs, stock purchases.
- Use of tools and methods for measuring business performance:
 - SWOT (strengths, weaknesses, opportunities, threats) analysis
 - profitability
 - customer satisfaction and growth.

Learning aim B: Understand staff management and customer service in equine yards

B1 Role of the manager

Staff management responsibilities in equine yards.

- Role of a manager, including managing staff rotas, appraisals and reviews, sickness and absence.
- Considerations when planning staff rotas, including legal working hours, staff costs, shift patterns, annual leave.
- Planning for problems associated with staff absences.
- Standard operating procedures, staff safety codes, accident recording and monitoring.
- Managing risks and risk assessments of individual staff as needed, e.g. disability, pregnancy, injury.
- Managing staff training and continuing professional development (CPD).

B2 Communication and customer service in an equine organisation

- Communication with a range of associates, including owners, clients, health professionals, suppliers.
- Methods of communication, including oral and written, e.g. electronic, communications board and daybook.
- Communication skills, to include listening, questioning, body language, recognising and dealing with conflict situations, giving and receiving feedback.
- Dealing with complaints and disputes, including dealing with client and staff attitudes.
- Importance of customer service in equine organisations, including:
 - relationship between customer experience and profitability
 - representing the organisation to improve customer experience
 - staff appearance and attitude, including professionalism, enthusiasm and approach
 - efficiency of the equine establishment, including quality of service, knowledge of products and customer needs, effective administration
 - operational customer service, including timeliness, responsiveness, provision of information to customers, customer and staff interaction, documentation, resolutions
 - policies and procedures, including those relating to staff, animals and customers.

Learning aim C: Investigate routine operations and duties in equine yard management

C1 Managing horses

Factors affecting equine management on a yard.

- Horse routines and rotas, including:
 - turn-out frequency/times
 - work-level capability, e.g. availability for riding, jumping, driving
 - maintaining horse fitness and training to ensure suitability for purpose.
- Health promotion with the use of specialist professionals, e.g. farrier, equine dentists, saddle fitters.
- Managing individual horse risk and categorising horses' suitability for experienced and less experienced staff and clients.

C2 Maintaining horse records

- Business bookings diary, e.g. bookings for livery, riding lessons, stud.
- Horse insurance, including veterinary care, loss of use and public liability.
- Routine individual horse record keeping, including:
 - horse passports
 - horse health records, including preventative treatments, farrier, dentist, weight, illnesses and condition.

C3 Yard management

Routine responsibilities of yard managers.

- Maintaining and ordering supplies using stock reorder level, including feed, bedding, cleaning and hygiene products, equine healthcare products, ancillary items, office supplies.
- Yard maintenance and pasture management, to include loose boxes, gates, fencing, field quality and capacity, services.
- Licensing and management of yard vehicles, e.g. HGV and non-HGV vehicles such as horseboxes, tractors and trailers.
- Security issues for horses, including security of the yard, yard insurance, locks, alarms, CCTV, security lighting, horse identification, e.g. freeze-marking.
- Security issues for tack, including locked and alarmed tack room, tack stamps and identification plates, tack insurance.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand professional practices in equine yards and how they contribute to yard management		A.D1 Evaluate the importance of good professional practice on the successful management of an equine yard.
A.P1 Explain the impact of legislation and codes of practice on equine yard operations. A.P2 Explain management practices for operating viable equine organisations.	A.M1 Analyse the importance of legislation, codes of practice and sound management practices on the success of an equine yard.	
Learning aim B: Understand staff management and customer service in equine yards		B.D2 Justify the importance of effective staff management, communication and customer service in successful equine organisations. C.D3 Evaluate the contribution of effective routine management to the success of an equine yard.
B.P3 Explain how effective staff management contributes to the success of equine organisations. B.P4 Explain the importance of communication and customer service in successful equine organisations.	B.M2 Analyse strategies for effective staff management, communication and customer service in successful equine organisations.	
Learning aim C: Investigate routine operations and duties in equine yard management		
C.P5 Explain effective management processes for horses and horse records in an equine yard. C.P6 Explain the routine duties of a yard manager.	C.M3 Assess the importance of effective routine yard management to the success of an equine yard.	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aims: B and C (B.P3, B.P4, C.P5, C.P6, B.M2, C.M3, B.D2, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- suitable equine businesses
- detailed case studies of equine organisations.

Essential information for assessment decisions

Learning aim A

For distinction standard, learners must comprehensively explore the professional standards and legislation that are relevant to the style of equine yard selected for assessment. They must demonstrate a clear understanding of how governing practices such as rules and standards of dress and presentation, and operational legislation, impact on the running of the organisation. Learners must clearly articulate the relationship between good practice in these areas and successful operation.

Learners must understand the methods and processes available when creating budgets for an equine organisation and the importance of accurate budgeting to organisation success. Learners must explore a range of methods available for measuring business success and interrogate the merits and value of each.

For merit standard, learners must examine the professional standards and legislation appropriate to the style of equine yard selected for assessment. Learners must consider the relationship between them and the daily management of the organisation.

Learners should demonstrate a detailed understanding of the budget-management skills required to run equine businesses successfully, and clearly detail the methods by which organisation success can be measured.

For pass standard, learners must evidence knowledge of the different aspects of professional standards and legislation in equine yards and demonstrate an awareness of the impact they have on the management of an equine organisation.

Learners must show an understanding of the importance of budgeting in relation to organisation success and of the methods by which this success could be measured.

Learning aims B and C

Learners may use case studies to explore management processes in equine yards.

For distinction standard, learners will fully appreciate the importance of effective people management, in relation to both staff and customers, including clear communication appropriate to specific audiences, making connections between this management and organisation success.

Learners will demonstrate full awareness of the yard-management processes and duties, and will provide practical and innovative solutions to the challenges and problems a yard may face.

For merit standard, learners will demonstrate understanding of a range of people-management approaches available to yard managers and will suggest effective methods for managing both yard staff, as well as customers and clients. Learners will show an appreciation of the effectiveness of clear, professional communication in meeting the needs of successful equine organisations.

Learners must clearly evidence their knowledge of the routine management of well-run equine yards, providing operationally viable suggestions to challenges yards may face.

For pass standard, learners will demonstrate an understanding of the role and responsibilities of a manager in relation to staff management. They will show how effective communication and good customer service can affect equine businesses.

Learners will demonstrate a clear understanding of the duties of a yard manager, in relation to the unit content, and will provide practical recommendations for the management of horses and horse activity.

Links to other units

The assessment for this unit should draw on knowledge, understanding and skills developed from:

- Unit 1: Equine Structure, Form and Function
- Unit 2: Equine Diet and Nutrition
- Unit 4: Work Experience in the Equine Sector
- Unit 5: Horse Tack, Equipment and Rugs
- Unit 6: Equine Health and Husbandry
- Unit 10: Equine Business management
- Unit 13: Managing an Equine Event.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- observation during work experience
- support from local equine business staff as mentors.

Unit 10: Equine Business Management

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners study concepts of business management and the breadth of businesses in the equine sector, exploring the roles and responsibilities associated with it.

Unit introduction

Understanding business management is vital in any industry. In the current economic climate, gaining a competitive advantage is key to success. Employees in the equine sector need to understand the factors that can influence success and use them to apply good business management skills. You need to be aware of how organisations and suppliers in associated sectors apply knowledge and understanding of business to become successful.

In this unit, you will learn about a range of organisations and associated industries. You will also learn about resource requirements, including human resources and the job roles available in the equine sector. You will examine different record systems that can affect business management, including physical records, financial records and supply chains.

These activities will prepare you for employment in the equine sector in roles such as event management assistant or yard manager. This unit will enable you to progress to higher education courses such as the Higher National Diploma in Business.

Learning aims

In this unit you will:

- A** Understand the range and purposes of businesses operating in the equine sector
- B** Investigate physical and human resources required to operate equine-sector businesses
- C** Explore record-keeping systems to measure the success of an equine-sector business.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Understand the range and purposes of businesses operating in the equine sector	A1 Types of equine-sector businesses A2 Associated equine-sector businesses A3 Benefits and impacts of associated equine-sector businesses	A report on one specific equine-sector business and how it relates to other businesses in the sector.
B Investigate physical and human resources required to operate equine-sector businesses	B1 Physical resource requirements for an equine-sector business B2 Human resource structures B3 Job roles and responsibilities B4 People management	A report exploring the structure and resourcing of contrasting equine-sector businesses, and how they monitor and measure success through record keeping.
C Explore record-keeping systems to measure the success of an equine-sector business	C1 Financial records C2 Staff development records C3 Physical records	

Content

Learning aim A: Understand the range and purposes of businesses operating in the equine sector

A1 Types of equine-sector businesses

Typical organisations in the sector and the objectives of each type of business.

- Commercial/profit-making organisations, e.g. riding school, equine veterinary practice, commercial stud farm.
- Key features of business types, including sole trader, partnership, private and public limited company.
- Public sector businesses – implementing regulatory standards, e.g. government/local government.
- Charitable, not-for-profit organisations – ensuring equine welfare, providing horses for human needs, e.g. riding for people with disabilities.
- Objectives associated with business type, e.g. profit, customer service.

A2 Associated equine-sector businesses

Links between an equine-sector business and associated industries in the supply chain.

- Suppliers, e.g. equine feed, equine accommodation.
- Competition holders, e.g. Horse of the Year Show, racing.
- Retailers, e.g. tack and accessory suppliers.

A3 Benefits and impacts of associated equine-sector businesses

- Specific interrelationships between an equine-sector business and other businesses.
- Professional bodies and their role, e.g. British Horse Society (BHS).
- Regulatory bodies and their role, e.g. licensing, health and safety.

Learning aim B: Investigate physical and human resources required to operate equine-sector businesses

B1 Physical resource requirements for an equine-sector business

The resources and associated costs required for different equine businesses.

- Accommodation, such as land and buildings, e.g. farm buildings, stable blocks, retail premises.
- Operational equipment, e.g. tractors, equine transport, veterinary equipment.
- Supplies, e.g. feed, bedding, rugs, tack, safety equipment.

B2 Human resource structures

- Key features of common business structure.
- Organisational structure of the business, e.g. flat, hierarchical, matrix.

B3 Job roles and responsibilities

Understanding the job role, job descriptions and person specifications in an equine business:

- owner/manager, executive
- supervisor
- team worker, e.g. estate maintenance
- trainee, e.g. apprentice groom
- administrator, e.g. equine veterinary practice manager
- volunteer, e.g. equine retirement sanctuary
- how job descriptions and person specifications determine level of decision making, skills required and accountability in specific job roles.

B4 People management

The importance of effective people management in achieving an organisation's objectives.

- Motivation to meet business objectives, e.g. financial and non-financial motivators.
- Equal opportunities legislation.
- Appropriately trained and skilled staff to meet business objectives.

Learning aim C: Explore record-keeping systems to measure the success of an equine-sector business

C1 Financial records

Types of financial record-keeping systems and potential impact if these systems are not implemented.

- Importance of keeping accurate records – legal requirements, including income statement, break-even analysis and payment of tax.
- Purchasing and ordering procedures.
- Sales records, including year on year figures for data analysis.
- Wage calculation for employees.

C2 Staff development records

The link between staff performance and the success of the business.

- Key performance indicators for employees.
- Annual staff performance reviews or appraisals.
- Managing poor performance, adhering to employment legislation.
- Linking an individual's objectives to meeting business objectives and their individual contribution.
- Identifying future needs for the business and succession planning.

C3 Physical records

The records appropriate to the equine sector industry to measure business success.

- Staffing records, including working hours, shift systems or working patterns to meet operational needs.
- Customer records.
- Stock management.
- Management of buildings and facilities.
- Management of information technology and security systems.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand the range and purposes of businesses operating in the equine sector		A.D1 Evaluate how a specific equine-sector business interrelates with other industries and businesses in the sector to provide services.
A.P1 Explain the purpose and type of different businesses in the equine sector. A.P2 Discuss how different businesses in the equine sector interrelate.	A.M1 Assess the importance of a specific equine-sector business and its relationship to other businesses in the sector.	
Learning aim B: Investigate physical and human resources required to operate equine-sector businesses		B.D2 Evaluate the importance of effective resource management in a specific equine-sector business. C.D3 Evaluate how effective management of record keeping systems enables a business to operate successfully in the equine sector.
B.P3 Explain the importance to the businesses of ensuring effective management of physical and human resources. B.P4 Review job roles in contrasting equine businesses to illustrate accountability and structure.	B.M2 Analyse how contrasting businesses manage physical and human resources.	
Learning aim C: Explore record-keeping systems to measure the success of an equine business		
C.P5 Explain the purpose of different types of record keeping in a specific equine-sector business. C.P6 Explain the importance of maintaining different types of record keeping in a specific equine-sector business.	C.M3 Analyse how record-keeping data can be used to measure success in an equine-sector business.	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aims: B and C (B.P3, B.P4, C.P5, C.P6, B.M2, C.M3, B.D2, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to at least two equine businesses that will allow them to research and gather information on the organisational objectives, human and physical resources and where possible, any financial data. Ideally, this should include learners' work experience placement.

Essential information for assessment decisions

Learning aim A

For distinction standard, learners will articulate their arguments and views concisely and professionally to justify the conclusions that they reach about the ways businesses in the equine sector interrelate. They will discuss advantages and disadvantages of business relationships, considering how they impact on user perception and business objectives. They will explore how decisions that are made separately from the main business have an impact along the chain, for example if a supplier increases their prices, the main business will need to charge their customers more for a product.

For merit standard, learners will select and apply relevant knowledge to reach reasoned, analytical judgements about the relationships between animal-sector businesses. Learners must consider the implications of relationships along the supply chain on their explicit business objectives, for example how membership of a professional, regulatory business can provide assurance to their customers of their reputation. Learners will discuss the differing levels of importance that various relationships have on businesses and how these relationships enable businesses to perform according to their purpose.

For pass standard, learners will recall knowledge and understanding to give an account of the chosen equine-sector business and its relationship with associated businesses in the equine sector. They will discuss the type of business and relate this to its purpose and objectives. They will explore business relationships along the supply chain and discuss how these enable the business to meet its objectives.

Learning aims B and C

For distinction standard, learners will articulate their arguments and views concisely and professionally to justify the conclusions they reach. Learners will show depth of understanding by making a detailed analysis of their research. They must consider how the management of physical, financial and human resources impact on the success of an organisation. They must discuss the types of records kept by the businesses and the methods used in keeping these records, linking them to the management of resources and the success of the businesses in meeting their operational objectives. Learners will research staff motivational strategies used in the businesses, determining, where relevant, the impact of them on business success.

For merit standard, learners will select and apply relevant knowledge to carefully consider how businesses are structured, and how this enables businesses to meet their objectives. Learners must make reasoned, analytical judgements when considering how good record keeping gives a clear analysis of how well the business is performing. Learners analyse the approaches of contrasting business to physical and human resource management, including consideration of the link between operating success and staff management.

For pass standard, learners must recall knowledge to give an account of the type, structure and organisation of selected businesses, and the physical resources needed to ensure the success of the business. Learners must consider the link between structure and the accountability and responsibility of selected job roles. They must use relevant research to show the importance of the different types of record keeping and must include examples. For example, they could include the importance of good stock control and record keeping, the effects of inappropriate physical resources as a result of poor stock control and the legal implications for not using correct records.

Links to other units

This unit links to *Unit 9: Managing an Equine Yard*.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- observation during work experience
- support from local equine business staff as mentors.

Unit 11: Horse Fitness

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners investigate the principles of getting horses fit and how these can be applied in practice.

Unit introduction

Learners will examine the practical requirements of early fitness preparations, including the need for progressive fitness programmes in a variety of sporting disciplines. Learners will develop their understanding of the methods of monitoring and evaluating fitness and the physiological effects of fitness and training on the horse's systems.

In this unit, you will study the conformation and condition of horses in order to plan and monitor their fitness and training. You will need to know and understand the requirements of planning fitness and training programmes for specific disciplines. You will draw on learning from across the qualification in relation to horse conformation, health and activity. To complete the assessment task within this unit, you will need to draw on your learning from across your programme.

The effective management of horse fitness is an essential skill if you want to work with horses in competitive environments and in the leisure industry. This unit will help you to progress to further vocational training or employment as a riding groom.

Learning aims

In this unit you will:

- A** Examine the requirements of horse-fitness preparation to support the health and welfare of horses
- B** Plan horse-fitness programmes for different sporting disciplines
- C** Monitor horse fitness to measure responses to fittening.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Examine the requirements of horse-fitness preparation to support the health and welfare of horses	A1 Physiological effects of fittening A2 Fitness indicators A3 Fitness preparation	A case study on one horse plus training programmes in different sporting disciplines. Assessment of horse, to include labelled photographic stills.
B Plan horse-fitness programmes for different sporting disciplines	B1 Conformation B2 Fittening programmes B3 Issues that affect fittening	
C Monitor horse fitness to measure responses to fittening	C1 Monitoring fitness C2 Maintaining fitness A3 Roughing off	A report evidencing different methods of monitoring and maintaining fitness.

Content

Learning aim A: Examine the requirements of horse-fitness preparation to support the health and welfare of horses

A1 Physiological effects of fittening

An overview of the effects of fittening on the health of a horse's body.

- Physiological effects, to include:
 - musculoskeletal – changes to the muscle fibres, e.g. increased mitochondria, improved oxygen carrying capacity, improved capacity for glycogen storage, muscle fibre type, supple and well-developed muscles, increased bone strength, remodelling
 - respiratory system – changes to respiration rate and recovery after exercise, alveolar recruitment, pulmonary capillarisation, functional lung capacity, diaphragm and chest muscles, ability to use oxygen
 - circulation – cardiac output, increase in heart size, proliferation of capillary beds, increase in red blood cell production and turnover, heart rate, improved recovery after exercise
 - lymphatic system efficiency.

A2 Fitness indicators

Considerations in relation to the assessment of horse fitness.

- Heart rate, to include monitoring heart rate at rest, when tacked up, during exercise and on recovery.
- Assessment of fitness at rest:
 - history of horse, age and previous level of training
 - evidence of current workload, e.g. shod, clipped, trimmed
 - condition score
 - muscle tone and development, shape of neck, shoulders and hindquarters
 - significance of heart rate.
- Assessment of fitness during and after exercise:
 - horse-fitness assessment – after walk and trot, and assessing suitability for canter
 - respiration – sound, coughing, alteration of respiration rate, recovery rate after moderate and strenuous exercise
 - sweating – quantity of sweat in relation to level of exercise, type of sweat, e.g. clear or white lather; heat produced.
- Mental relaxation, mental stress indicators, e.g. box walking, sour temperament, pawing.

A3 Fitness preparation

Factors affecting the stable management and horse care in preparation for initial fittening work.

- Requirements of fitness preparation, to include:
 - providing adequate bedding, hard feed, hay
 - tack and equipment – checks for damage and cleanliness of saddlery and horse clothing, adjustment of fit
 - consideration of age, type and temperament, soundness, previous level of training, end goal, time of year, time out of work
 - bringing up from grass – introduction of grooming, hard feed, stabling and initial exercise, working a horse from grass
 - clipping and trimming, foot care
 - health and safety considerations when fittening horses
 - meeting appropriate health standards before fittening – preventative healthcare, e.g. physiotherapy, vaccination, worming treatment, teeth check.

Learning aim B: Plan horse-fitness programmes for different sporting disciplines

B1 Conformation

Assessment of horses' conformation when stood up for inspection and at walk and trot.

- Linking conformation to performance, e.g. racehorse, event horse, endurance horse, showing.
- Static conformation, recognising good and bad conformation, including:
 - good conformation horse proportions, measurement of bone, quality and symmetry of feet, terminology, e.g. leg at each corner, length of rein, topline
 - conformation faults – back at/over at the knee, ewe neck, long/short neck, herring gutted, sickle hocked, straight in the hind leg, long pasterns, long cannons, rotation of limbs, e.g. cow hocked, toe out, knock-kneed
 - sites of ailments and blemishes related to conformation – splints, curb, false curb, windgalls
 - dynamic conformation and relationship to the horse's way of going, including:
 - inspection of shoe wear
 - deviation of limbs from straight flight path, e.g. dishing, brushing, plaiting; stress on tendons and joints
 - conformation faults impact on soundness.
- Recognising the posture and action of a lame horse, e.g. toe dragging, un-level hip action, nodding head.

B2 Fittening programmes

Designing practical programmes for different sporting disciplines.

- Planning and designing fitness programmes:
 - definitions of light, medium and hard work
 - effects of traditional methods, to include use of roadwork, horse walker, hill work, the value of schooling, lunging, gridwork, jumping, fast work and fartlek
 - effects of interval training, use of training speed, tainting distance, repetitions and work relief
 - effects of non-traditional methods of fattening, including treadmills and swimming
 - fittening programmes to get horses fit for medium work, different disciplines, e.g. sports horses, riding club horses, endurance horses, hunters
 - compensation in plan for previous injuries or problems.

B3 Issues that affect fittening

- Problems affecting the competition horse:
 - dehydration, including signs and causes, forms of fluid loss, electrolyte balance, synchronous diaphragmatic flutters, testing and treatment
 - heatstroke, including signs, causes and treatment
 - homeostatic control systems, including thermoregulation, mechanisms of heat loss, e.g. sweat evaporation, cardiovascular changes, respiratory losses
 - signs and causes of fatigue
 - muscle tremors.
- Overwork, leading to soundness and health issues, e.g. broken wind, reduced oxygen supply to the muscles, over-stretched heart muscle, equine rhabdomyolysis syndrome (ERS).
- sores from dirty tack or horse clothing, injury caused by ground conditions, e.g. concussion on roads or soft-tissue damage in deep going.

Learning aim C: Monitor horse fitness to measure responses to fittening

C1 Monitoring fitness

Reasons for, and methods of, monitoring the fitness levels in horses.

- Importance of monitoring fitness, to include:
 - achievement of fitness goals
 - reflection on horse's performance
 - effectiveness of fittening programme.
- Monitoring heart rate through use of heart rate monitor, stethoscope or taking the pulse manually.
- Heart recovery rates, interval training as a monitoring tool.
- Monitoring respiration after strenuous exercise, anaerobic threshold, respiratory signs of ill health.
- Monitoring horses' weight through observation, weigh tape or weighbridge, muscle tone and development, recognition and causes of loss of condition, e.g. stress, parasites or illness.
- Regular blood and serum tests, packed cell volume (PCV), veterinary analysis.
- Soundness.
- Energy levels and attitude to work.

C2 Maintaining fitness

Methods of maintaining fitness levels in horses.

- Basic management of fit horses, including practical feeding, daily exercise, rest days, grooming, health management, mental stress and temperament.
- Maintenance of horse fitness according to sporting disciplines, e.g. dressage horse, event horse, endurance horse.
- Modification of fittening programmes, to include:
 - tailoring programme to specific competitions
 - increasing/decreasing workload according to requirements
 - altering training speed in interval training
 - dealing with an uninterested horse.

C3 Roughing off

Roughing-off procedure:

- grooming and foot care
- reducing hard feed and stabling, increasing turn out
- field, shelter and companionship considerations
- consideration of age, type and temperament, soundness.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Examine the requirements of horse-fitness preparation to support the health and welfare of horses		
<p>A.P1 Perform a condition and fitness assessment of a specified horse.</p> <p>A.P2 Explain requirements of fitness preparation for a specified horse.</p>	<p>A.M1 Perform condition and fitness assessment to industry standard.</p> <p>A.M2 Assess achievability of fitness preparation in relation to the health and welfare of a specified horse.</p>	
Learning aim B: Plan horse-fitness programmes for different sporting disciplines		
<p>B.P3 Perform a simple static and dynamic conformation assessment for a specified horse.</p> <p>B.P4 Explain own simple fittening programme decisions taken to achieve fitness for the specified horse for different sporting disciplines.</p>	<p>B.M3 Perform a complex conformation assessment to link static and dynamic conformation for a specified horse.</p> <p>B.M4 Assess the probable effectiveness of own traditional and interval fittening programme decisions taken to achieve fitness for a specified horse for different sporting disciplines.</p>	
Learning aim C: Monitor horse fitness to measure responses to fittening		
<p>C.P5 Explain how to monitor horse fitness.</p> <p>C.P6 Explain how to maintain horse fitness for different sporting disciplines.</p>	<p>C.M5 Analyse methods of monitoring and maintaining horse fitness for different sporting disciplines.</p>	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aims: A and B (A.P1, A.P2, B.P3, B.P4, A.M1, A.M2, B.M3, B.M4, A.D1, B.D2)

Learning aim: C (C.P5, C.P6, C.M5, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- a range of horses with different levels of fitness
- horse tack and equipment for ridden work
- personal protective equipment (PPE) for ridden work
- heart rate monitors, stethoscopes, stop watches, buckets and sponges
- classrooms and internet connection
- cameras and printers
- competition yards, e.g. endurance, dressage, eventing.

Essential information for assessment decisions

Learning aims A and B

For distinction standard, learners will form a conclusion as to the best method of fitness preparation for their specified horse in light of its present condition and its environment, for example stabled and worked at a college. Learners must articulate clearly the reasoning behind conclusions for horse-fitness preparation and the likely impact on the horse's health and welfare if their recommendations are implemented. Learners must show their knowledge of the yard's common health and welfare practices, for example access to physiotherapy or regular saddle fitting.

Learners must give a conclusion that shows how the conformation of their chosen horse might impact on its ability to be fittened to a medium work level in different sporting disciplines. Conformation will be examined in some depth with regard to how it might impact on the horse's way of going, athletic potential and long-term soundness.

For merit standard, learners will complete a thorough, logical and comprehensive assessment of the condition and fitness of their chosen horse. Key fitness indicators will be discussed in depth and learners will link ridden fitness-assessment expectations accurately to the assessment of the horse at rest. Learners must consider carefully the environment their chosen horse is kept in and identify factors that might impact on them achieving their fitness-preparation plan, in relation to the health and welfare of the horse, for example moving from straight grass livery to a stabled environment with no adjustment period.

Learners must make a thorough assessment of their chosen horse's static and dynamic conformation, for example an in-depth and accurate assessment recognising minor faults and associated blemishes. Learners will be logical and methodical in their approach to assessing the horse. They will identify static conformation issues and clearly link these to probable dynamic conformation faults. Learners must consider carefully how the traditional fittening and interval-training programmes will affect their chosen horse. They will expand on their detailed reasoning at pass level to include issues that might affect their chosen horse and the expected measurable physiological changes.

For pass standard, learners will choose one horse and, using key fitness indicators, carefully consider the horse's current level of fitness. Learners will use an assistant to stand their chosen horse up for inspection and take photographs of the horse from both sides, the front and the back. These photographs will be carefully labelled by learners to evidence their assessment of the horse. All the unit content must be covered, including assessment of the horse during and after exercise. Using the same horse, learners must clearly research and consider the specified horse's health and welfare needs before carrying out a fittening programme. Learners must use all the information available to them, for example accurate and up-to-date health records, current level of fitness and the fit and condition of tack and equipment. Learners could present this as a checklist with detailed reasoning to support their opinions.

Learners will demonstrate their understanding of static and dynamic conformation. Learners must assess one horse, preferably the same specified horse used in learning aim A. The assessment must cover static conformation and dynamic conformation at walk and trot. Static conformation should be evidenced using labelled photographs of the horse stood up for inspection. Dynamic conformation assessment can be evidenced by teacher observation reports or videos. All basic and obvious good conformation and faults must be recognised. Learners will develop fittening programmes tailored to their chosen horse. They must fitten their chosen horse to medium work level in three different, suitable disciplines. Learners must specify the level of discipline they are fittening towards in order to evidence their knowledge and understanding, for example in elementary dressage. They can discuss disciplines not listed in the unit content. Learners may present their programmes as a series of fittening plans with detailed reasoning for their decisions. Traditional fittening methods and interval training must be included.

Learning aim C

For distinction standard, learners must give a detailed examination of the potential benefits of a range of methods used to monitor and maintain the fitness of competition horses. They will examine the advantages and disadvantages of each method and contemplate their relevance and ease of application in daily fittening programmes. Learners will come to a conclusion regarding the best choice. They must give clear reasoning for the need to monitor horse fitness throughout the process of fittening and while maintaining fitness.

For merit standard, learners must give a detailed examination of methods of monitoring and maintaining horse fitness for different sporting disciplines. Examples of weekly worksheets for maintaining fitness from three different disciplines should be supported by the detailed examination of processes used, for example veterinary analysis. Learners must cover in depth all the unit content for monitoring and maintaining fitness. Evidence could be in the form of case studies or interviews with industry specialists who work with competition horses from different disciplinary backgrounds.

For pass standard, learners will show clearly that they understand how to monitor horse fitness, for example heart rate, condition and attitude to work. Learners must give reasons why monitoring fitness is important throughout the process of getting horses fit, and once the fitness goal has been achieved. Learners will extend their reasoning to evidence how to maintain horses' fitness for different sporting disciplines. They must cover at least three different sporting disciplines. Learners may find it beneficial to use the same three disciplines they investigated in learning aims A and B. Learners can use case studies of specific competition horses and/or trainers to support their written work.

Links to other units

The assessment for this unit should draw on knowledge, understanding and skills developed from:

- Unit 1: Equine Structure, Form and Function
- Unit 2: Equine Diet and Nutrition
- Unit 4: Work Experience in the Equine Sector
- Unit 5: Horse Tack, Equipment and Rugs
- Unit 6: Equine Health and Husbandry
- Unit 7: Preparation and Presentation for Competition Disciplines
- Unit 10: Equine Business management
- Unit 13: Managing an Equine Event.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- observation during work experience
- support from local equine business staff as mentors.

Unit 12: Schooling Horses on the Flat

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners study the principles and develop the skills for schooling horses on the flat, including correct rider position and the use of natural and artificial aids.

Unit introduction

The progressive and calm training of horses on the flat is a skill valued by many employers. A good position helps the rider to maintain security and be effective while training horses.

In this unit, you will develop your riding position and reflect on its effectiveness. You will develop your skills in working horses on the flat and use ridden school movements and basic lateral work on a variety of horses to maintain and improve their way of going. You will learn how to select and use suitable exercises and assess their effectiveness. You will investigate the levels of training required for preliminary- and novice-level British Dressage. Throughout the unit you will be made aware of the safety issues that relate to the horse, rider and the environment. To complete the assessment task within this unit, you will need to draw on your learning from across your programme.

This unit will enable you to develop safe working practices, drawing on learning from across the qualification in relation to equine behaviour, activity and welfare. It will give you the confidence to prepare for employment as a riding groom for a variety of sporting disciplines, for example in dressage yards, eventing yards, showjumping or hunting. The unit will also prepare you for further education and training.

Learning aims

In this unit you will:

- A** Understand the use of natural and artificial aids and the effect of rider position on ridden performance
- B** Carry out ridden flatwork exercises to demonstrate school movements and basic lateral work
- C** Develop the skill to influence horses when schooling on the flat to improve way of going.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Understand the use of natural and artificial aids and the effect of rider position on ridden performance	A1 Riding position theory A2 Use of the natural and artificial aids	A report detailing rider position and effective use of the aids.
B Carry out ridden flatwork exercises to demonstrate school movements and basic lateral work	B1 Rider position practical B2 School movements B3 Basic lateral work	A portfolio evidencing practical ridden performance, using video, photographs, observation records and witness statements, supported by learners' written assessments.
C Develop the skill to influence horses when schooling on the flat to improve way of going	C1 Basic training of the horse C2 Assessing for improvement	

Content

Learning aim A: Understand the use of natural and artificial aids and the effect of rider position on ridden performance

A1 Riding position theory

- Theoretical study of the correct riding position.
- Classical riding position, aims of the correct riding position, importance of balance, weight distribution, ease of influence, muscle tone, centre of gravity, effect on the horse's way of going and behaviour.
- Position from the side, to include alignment of the head, shoulders, arms, elbows and hands, back, waist, hips, legs and feet.
- Position from the rear, to include alignment of head, shoulders, elbows, seat, legs and feet.
- The seat, to include:
 - anatomy of the seat
 - mobility of the seat, moving the lumbar spine, tipping the pelvis, rotating hip joint and turning the seat.
- Position in movement, to include:
 - walk – upright position, supple seat and loins, effect of restriction through tension, rhythm of the gait, alternate seat bone movement and contact
 - trot (rising) – balance and rhythm, body inclined forward from pelvis, supple and contact
 - trot (sitting) – body position upright, absorption of movement through loins, seat and joints, contact and suppleness
 - canter – body position upright, loins and seat absorb movement, balance and legs long.
- Role of breathing in maintaining position, manner of use of body, including alternative methods that may help horse riders, e.g. Alexander technique.

A2 Use of the natural and artificial aids

- The natural aids, to include the seat and body weight, legs, hands and voice.
- Artificial aids, to include whips, spurs, martingales and training aids.
- Preventing confusion, unresponsive horses or unwanted behaviour through understanding practical application of equine behaviourist terminology in equitation, including use of:
 - negative reinforcement, e.g. release of pressure from rider's aids
 - positive reinforcement, e.g. scratching withers or food reward
 - negative punishment, e.g. removal of something desirable such as hard feed in order to punish – not used in equitation
 - positive punishment, e.g. addition of pain such as using the whip, hard use of spurs or excessive bit pressure
- Use of the aids, correct definitions, to include:
 - upwards transitions, transitions in a gait, downwards transitions, half-halt, halt and reinback
 - turns and circles, 20 m, 15 m, 10 m
 - turn-on-the-forehand, leg yielding, shoulder fore and shoulder-in.

Learning aim B: Carry out ridden flatwork exercises to demonstrate school movements and basic lateral work

B1 Rider position practical

Ridden exercises to improve rider position, coordination and use of the aids.

- Riding without stirrups, lunge work without stirrups, including:
 - exercises to develop balance, suppleness and an understanding of footfalls and rhythm, to include head and neck, shoulders and arms, spine, hip joints, ankle joints and seat position
 - independent movement of body parts
 - use of breathing exercises
 - rising trot without stirrups, changing the diagonal, centrifugal force at trot
 - use of the position and aids of athlete using British Dressage definition.

B2 School movements

Ridden school movements found in dressage tests up to and including British Dressage Novice tests.

- Medium walk, free walk on a long rein, working trot, medium trot, working canter, medium canter, halt and immobility.
- Ridden school movements, to include:
 - changes of rein, turns
 - circles 20 m, 15 m, 10 m, half circles
 - serpentines
 - give and retake the reins
 - lengthening of stride without losing rhythm or balance
 - reinback
 - counter canter.
- Transitions, to include:
 - upwards transitions, downwards transitions, within pace, progressive transitions, such as walk to canter.

B3 Basic lateral work

Ridden lateral work to improve communication between horse and rider, suppleness of the horse and eventually engagement of the hindquarters.

- Turn-on-the-forehand, leg yield, shoulder fore and shoulder-in.
- Use of poles and cones to assist with riding accurately.

Learning aim C: Develop the skill to influence horses when schooling on the flat to improve way of going

C1 Basic training of the horse

Approaches to training that develop the mental and physical abilities of the horse.

- Planning, e.g. consideration of the time taken to train horses, factors that affect rate of progress, assessment, use of positive and negative reinforcement.
- Qualities of a good rider/trainer, to include patience, calmness, temper control, tolerance, goal setting, clear understanding of aims, knowledge, practical ability.
- The scales of training, the way of going according to British Dressage definitions, to include rhythm, suppleness, contact, impulsion, straightness and collection.
- British Dressage definitions of movements, to include turns and circles, change of pace at a given marker, give and retake the reins, work on a long rein, the halt, reinback, transitions, half halts, changes of direction, voltes, serpentines, figures of eight, leg yielding, shoulder-in.
- British Dressage definitions of gaits, to include:
 - the walk, including medium walk, free walk and stretching on a long rein
 - the trot, including working trot, lengthening of steps and medium trot
 - the canter, including working canter, lengthening of strides, medium canter and counter-canter.
- British Dressage definition of impulsion and submission.

C2 Assessing for improvement

Reflective practice to improve performance.

- Methods of checking progress, to include video, coach/instructor feedback, competition results, ease of movements and increased obedience.
- Building on progress, to include adjusting goals, mid-term and long-term goals, complementary training, e.g. loose schooling, hacking, jumping.
- Use of reflective journals, experiential learning cycles, e.g. Kolb.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand the use of natural and artificial aids and the effect of rider position on ridden performance		A.D1 Evaluate the significance of the link between riding position and application of the aids.
A.P1 Compare personal riding position with an ideal riding posture regarding how it affects the horse. A.P2 Explain the use of the aids when riding school movements and basic lateral work.	A.M1 Analyse how the position of the rider affects the ability to apply the aids correctly.	
Learning aim B: Carry out ridden flatwork exercises to demonstrate school movements and basic lateral work		B.D2 Perform ridden flatwork on horses with a variety of temperaments and of differing levels of training showing a balanced, supple and independent seat. C.D3 Evaluate how own performed school movements and basic lateral work has improved horses' way of going.
B.P3 Perform ridden school movements on schooled horses. B.P4 Perform basic ridden lateral work on schooled horses.	B.M2 Perform ridden flatwork on schooled horses, showing a balanced, supple and independent seat.	
Learning aim C: Develop the skill to influence horses when schooling on the flat to improve way of going		
C.P5 Explain basic training of the horse. C.P6 Perform school movements and basic lateral work to improve horses' way of going.	C.M3 Analyse, with reference to theory, how correctly ridden school movements and basic lateral work can develop the basic training of the horse. C.M4 Perform ridden flatwork on horses to improve their way of going, showing a balanced, supple and independent seat.	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aims: B and C (B.P3, B.P4, C.P5, C.P6, B.M2, C.M3, C.M4, B.D2, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- current knowledge of British Dressage standards, available in British Dressage members' handbook (online)
- photographic and video equipment
- dressage competition pictures, either in magazines or on the internet
- personal protective equipment (PPE), e.g. gloves, riding hat to correct current standard, riding boots
- well-maintained tack and equipment
- well-schooled horses
- a range of types of horse with differing temperaments and levels of training
- riding arenas, including dressage arenas with correct letters
- ground poles
- riding instructor/coach qualified to a minimum of British Horse Society Assistant Instructor (BHS AI) or Level 2 coaching equivalent.

Essential information for assessment decisions

Learning aim A

For distinction standard, learners must demonstrate that they understand the interrelationship between riding position and the ability to apply aids correctly. Links between each positional element and its knock-on effect on the rider's ability to communicate their intentions to the horse must be examined in detail. Learners will have a strong understanding of the terms 'negative and positive reinforcement' and will relate these terms clearly to the use of the natural aids when riding. Learners must show a solid understanding of timing, frequency of use and strength of application of the natural aids.

For merit standard, learners will break down their own personal riding position and an ideal position in order to study how riders' ways of sitting influences the effectiveness of the application of the aids. Learners should use multiple photographs or video stills to support their detailed examination of riders' positions. Learners will use specific examples of school movements and basic lateral work to highlight the key issues. Comparative photographs and/or video stills will enable learners to deconstruct methodically the riding positions and subsequently interpret the effectiveness of the application of the aids.

For pass standard, learners will use several photographs or video stills to identify the main similarities and differences of their own personal riding position and an ideal riding position on the flat. Learners must show depth of knowledge by giving a clear and objective account of how the different riding positions affect the horse. Learners should consider balance, tension, evidence of an independent seat, contact and ability to apply the aids correctly.

Learners must show clearly that they understand the natural aids used for a variety of school movements and basic lateral work. Learners must use correct terminology and cover the unit content in A2, including upwards transitions, transitions in a gait, downwards transitions, half-halt, halt, reinback, turns and circles, turn-on-the-forehand, leg yielding, shoulder fore and shoulder-in. Learners will show that they understand what negative and positive reinforcement is, how it relates to the importance of timing, the sequence of application and how to apply the aids correctly. Photographs and/or video stills of learners and of competitive dressage riders should support the written work.

Learning aims B and C

For distinction standard, learners must demonstrate the school movements and basic lateral work on at least three challenging horses. These horses should have different temperaments and levels of training, for example young horses or ex-competition horses. Distinction standard learners will show the same level of balanced, supple and independent seat as merit learners but on more challenging horses.

To judge their own personal performance, learners must reflect on their practical performance and draw on their theoretical understanding of how school movements and basic lateral work develop horses' athletic abilities. Learners should consider the horses and themselves as the rider, and reflect on how they used specific exercises to overcome their weaknesses and build on their strengths. Learners must suggest alternative actions that could have improved performance and suggest why these were not implemented. Learners must demonstrate a high level of understanding of the significance of correct schooling and the importance of sequential steps towards a final goal.

For merit standard, learners must demonstrate the school movements and basic lateral work with good core stability on three different well-schooled horses. Learners must show good coordination and the ability to maintain a strong posture throughout the acceleration and deceleration of the horse; learners will adjust their position smoothly to maintain longitudinal and lateral balance. Weight will be evenly distributed on straight lines and will be adjusted accordingly on turns and circles.

Learners must examine in detail the interrelationship between correctly ridden school movements and basic lateral work and the athletic development of the horse. References to theory must be made clearly throughout the written work. Learners will ride and improve the way of going of three different calm, sensible horses. Learners must demonstrate correctly ridden school movements and basic lateral work while maintaining a balanced, supple and independent seat.

For pass standard, learners must demonstrate all the unit content of school movements as well as turn-on-the-forehand, leg yield, shoulder fore and shoulder-in on at least three different horses. The horses should be well schooled, calm and obedient. Evidence can be gathered using photographs, video stills, video and observation records completed by the teacher. Practical assessments and/or dressage tests are an appropriate method of assessment. Learners may also submit test sheets from competing horses outside of the centre.

Learners must detail clearly how to assess, plan and review the basic training of novice horses. Learners are not expected to write a training plan but they must show that they comprehend how to develop a horse's mental and physical ability to prepare it for novice dressage. A clear understanding of the scales of training, the correct gaits and how they can be developed using school movements and basic lateral work must be evident. Using this theoretical knowledge, learners will ride school movements and basic lateral work to improve at least three horses' way of going. The horses should be calm and sensible.

Links to other units

The assessment for this unit should draw on knowledge, understanding and skills developed from:

- Unit 1: Equine Structure, Form and Function
- Unit 2: Equine Diet and Nutrition
- Unit 4: Work Experience in the Equine Sector
- Unit 5: Horse Tack, Equipment and Rugs
- Unit 6: Equine Health and Husbandry
- Unit 7: Preparation and Presentation for Competition Disciplines
- Unit 11: Horse Fitness.

Employer involvement

Centres can involve employers in the delivery of this unit if there are local opportunities to do so. There is no specific guidance related to this unit.

Unit 13: Managing an Equine Event

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners develop the skills to plan and deliver an equine event, from the initial analysis of event needs and governance to planning, promotion and measures of success.

Unit introduction

The hosting of equine competitive events is a huge global industry, with millions of pounds spent every year on organising major events around the world. On a smaller scale, there are local events that inspire young people to take up equine disciplines.

In this unit, you will learn about planning, promoting and delivering different disciplines of equine competition, from local pony club events to international competitions. You will develop your own proposal for an equine event and then work with others to carry out its planning, promotion and delivery. Once the event is over, you will review the event and your contribution to it. For the review you will draw on your reflections during and after the event. To complete the assessment task within this unit, you will need to draw on your learning from across your programme.

This unit requires you to demonstrate a number of personal and organisational skills and qualities, including the management of tasks and people, effective communication, creativity and problem solving, attention to detail and the ability to work under pressure to meet tight deadlines. The skills learned are important for progression to employment in equine event management, and for further study in further and higher education.

Learning aims

In this unit you will:

- A** Investigate approaches to planning and delivering equine events
- B** Plan, promote and contribute to the delivery of an equine event
- C** Review the planning, promotion and delivery of an equine event.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Investigate approaches to planning and delivering equine events	A1 Regulations and legislation A2 Planning considerations	A presentation or report relating to the rules and regulations of different equine disciplines.
B Plan, promote and contribute to the delivery of an equine event	B1 Event planning and delivery B2 Event promotion	A plan for the promotion and delivery of the equine event. Evidence of delivery – observation reports, delivery log, testimony and feedback from stakeholders.
C Review the planning, promotion and delivery of an equine event	C1 Review event planning, promotion and delivery C2 Reflecting on own performance	A presentation or report reviewing the effectiveness of the planning, promotion and delivery of the equine event.

Content

Learning aim A: Investigate approaches to planning and delivering equine events

A1 Regulations and legislation

- The requirements and impact of relevant governing bodies on equine competition, e.g. British Horse Society (BHS), The Pony Club and British Equestrian Federation (BEF).
- The rules and regulations set by relevant affiliated and unaffiliated bodies, e.g. British Dressage, British Carriagedriving and Endurance GB.
- Legislation and insurance affecting equine events, e.g. health and safety legislation, data protection and public liability insurance.
- The impact of animal welfare and transport legislation, and codes of practice.

A2 Planning considerations

- Event purpose and design:
 - aims and objectives
 - event scale, e.g. local, national and international
 - meeting the needs of stakeholders, including riders, spectators, sponsors and media companies
 - competition management, including care of competitors and judges, running order, display of results, prize giving and adherence to rules.
- Finance and resourcing:
 - financial management, setting budgets, identifying sources of income and expenditure, e.g. catering, travel, venue hire and promotional costs
 - financial contingency planning in case of inclement weather, poor turn out or uptake
 - resources required, including discipline-specific equipment, prizes, marketing and promotional materials
 - human resourcing, including job roles and descriptions, hire and allocation of staff.
- Health and safety:
 - completion of appropriate risk assessments, identifying and implementing suitable controls
 - safety and security, including key risk areas – staffing, policing and stewarding, safeguarding, first aid, planning for emergencies, e.g. evacuations procedures
 - provision for equine welfare.
- Site-specific considerations
 - site management, including parking considerations, access arrangements, toilet facilities, catering, restricted access and event area
 - environmental considerations, including waste disposal and biosecurity.

Learning aim B: Plan, promote and contribute to the delivery of an equine event

B1 Event planning and delivery

Implementation of the planning and delivery of an equine event.

- Event planning, including design and purpose, financing and resourcing, health and safety, site management.
- Event management: implementation of design, including adjustments and contingencies to meet aims and objectives.
- Effective management skills involving leadership, decision making and problem solving, clear communication, customer service skills, effective teamwork.

B2 Event promotion

- Implementation of promotional activities for an event, e.g. posters and flyers, social media, direct mailing.

Learning aim C: Review the planning, promotion and delivery of an equine event

C1 Review event planning, promotion and delivery

- Measures of success, including personal performance, financial gain, participant enjoyment and value of event to the local community/economy.
- Methods of obtaining feedback, including personal reflection, participant questionnaires and witness testimonies.
- Reviewing planning against success measures.
- Reviewing promotion and delivery processes against success measures in terms of planning, including use of contingencies.
- Recording suggested amendments for the planning and delivery of future events.

C2 Reflecting on own performance

Measuring success of personal contribution to the planning, promotion and delivery of an equine event.

- Establishing criteria to measure strengths and weaknesses of management performance.
- Using evaluation tools to measure performance in specific roles.
- Personal management characteristics, including decision making, leadership skills, customer service skills, clear communication, effective teamwork, compliance with tasks and schedules, completion within planned timescales.
- Areas for improvement, personal development and opportunities for development.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Investigate approaches to planning and delivering equine events		
<p>A.P1 Explain the rules and regulations of two different equine competitive disciplines.</p> <p>A.P2 Explain the planning, promotion and delivery considerations of two different types of equine competitive disciplines.</p>	<p>A.M1 Compare the planning, promotion and delivery considerations of two different equine competitive disciplines with regard to their rules and regulations.</p>	<p>A.D1 Evaluate the reasons for different types of planning, promotion and delivery of different equine competitive disciplines.</p>
Learning aim B: Plan, promote and contribute to the delivery of an equine event		
<p>B.P3 Explain own planning, promotion and delivery decisions involved in the organisation of an equine event.</p> <p>B.P4 Perform own roles fully, correctly and safely as part of a team, to achieve planned outcomes for the promotion and delivery of an equine event.</p>	<p>B.M2 Assess own contribution to planning, promotion and delivery decisions involved in the organisation of an equine event.</p> <p>B.M3 Demonstrate effective management as part of a team to achieve planned outcomes for the promotion and delivery of an equine event.</p>	<p>B.D2 Justify how own contribution to the planning, promotion and delivery of an equine event was undertaken to ensure effective teamwork and meet desired outcomes.</p>
Learning aim C: Review the planning, promotion and delivery of an equine event		
<p>C.P5 Explain the effectiveness of own planning, promotion and delivery of an equine event in view of planned success measures.</p> <p>C.P6 Identify own strengths, weaknesses and areas for development in equine event management.</p>	<p>C.M4 Analyse the effectiveness of own planning, promotion and delivery of an equine event in view of planned success measures, recommending areas of improvement for self and future events.</p>	<p>C.D3 Evaluate own performance in planning, promoting and delivering an equine event in view of planned success measures.</p>

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of three summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aim: B (B.P3, B.P4, B.M2, B.M3, B.D2)

Learning aim: C (C.P5, C.P6, C.M4, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- facilities to host an equine event
- a range of event-marketing materials
- financial information relating to a range of equine events.

Essential information for assessment decisions

Learning aim A

Learners' investigations will focus on two different types of equine events, for which there are information sources available to allow them to cover the targeted assessment criteria.

For distinction standard, learners will provide details on the rules and regulations of their two chosen events, using them to provide reasoned accounts for alternative planning, promotional and delivery approaches. In detailing the planning, promotion and delivery considerations for each event, learners will articulate clearly a rationale for all decisions taken, linking them to rules and regulations where appropriate and demonstrating a clear understanding of good practice.

For merit standard, learners will provide details on the rules and regulations of their two chosen events, focusing on the similarities and differences between them and how they will impact event planning, promotion and delivery. Learners will provide clear detail on the planning, promotion and delivery considerations for each event, covering all aspects of planning as indicated in the unit content, with particular detailed emphasis on key elements such as meeting stakeholder needs, resourcing and site considerations.

For pass standard, learners will provide details on the rules and regulations of their two chosen events, indicating how they will impact on planning, promotion and delivery. They will provide distinct summaries of the planning, promotion and delivery considerations for each event, with regard to all aspects of planning as indicated in the unit content. Evidence may take the form of oral presentations with accompanying research and slides or an alternative written format such as a report or an event-planning guide.

Learning aim B

Learners will work in groups to prepare for and implement the equine event. Each learner will prepare their own version of the planning documents and promotional material, as well as their own account of the impact that their role is likely to have on the success of the event.

For distinction standard, learners must contribute to the planning, promotion and delivery decisions in a way that meets at least the standard for merit. In their ongoing appraisal of their contribution, they must present reasoned and evidenced arguments of the potential impact of their decision making and contribution on all aspects of the event. Learners must have a clear audit trail detailing their involvement and use this to support their position.

For merit standard, learners must contribute significantly to the planning, promotion and delivery of the equine event in order to meet set objectives. They will demonstrate the ability to work well in a team, using their initiative and taking a lead when appropriate, while also respecting the position and decisions of others. They will be flexible and innovative, and demonstrate the ability to deal with problems quickly and efficiently. Learners will complete tasks to schedule and meet the targets agreed by the team in the planning stages. They must provide comprehensive documentation of the role they have undertaken, demonstrating that they have followed a detailed plan that includes regular monitoring. Learners must show that they can consider critically the value of their contributions.

For pass standard, learners must contribute to the planning, promotion and delivery of an equine event. Learners will demonstrate that they have worked appropriately to carry out tasks or activities effectively, safely and reliably to achieve the planned outcomes. They will have a clear understanding of their role in a team, monitor their own progress and complete all tasks in a suitable timescale. Learners must document their role in team decisions and give reasons for their position, approach or choices.

Learning aim C

Following the equine event, learners will review their personal contribution and the overall quality of the event against predetermined success measures. Evidence can include photographs, videos, assessor records or witness testimonies that contain sufficient detail to assess individual performance. Learners must also provide written or video evidence of their contribution to the event.

For distinction standard, learners will critically appraise their own performance in the planning, promotion and delivery of the equine event. They will articulate well-reasoned arguments that explore their personal strengths and areas for development, and provide considered recommendations for practice.

For merit standard, learners will reflect on their own involvement in the planning, promotion and delivery of the event, evidencing how it aided successful outcomes. Learners will show a clear understanding of their personal strengths and areas for improvement, they will begin to demonstrate greater critical awareness, such as questioning their decisions.

For pass standard, learners will review the effectiveness of the planning, promotion and delivery of the event in terms of adherence to the original plan, performance in specific roles and achievement of goals. They will accurately detail strengths and weaknesses, and areas for development required for participation in future events.

Links to other units

The assessment for this unit should draw on knowledge, understanding and skills developed from:

- Unit 1: Equine Structure, Form and Function
- Unit 2: Equine Diet and Nutrition
- Unit 4: Work Experience in the Equine Sector
- Unit 5: Horse Tack, Equipment and Rugs
- Unit 6: Equine Health and Husbandry
- Unit 9: Managing an Equine Yard
- Unit 10: Equine Business Management.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- opportunities for observation of during work experience
- support from local equine business staff as mentors.

Unit 14: Theory of Training Horses

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners study the mental and physical development of horses in training to strengthen their knowledge of handling and ridden equitation.

Unit introduction

This unit will give you the background knowledge you need to be able to work in the equine industry. You will learn about the theory that underpins practical horse riding and handling units. The unit will help you to understand how and why theory is fundamental to riding horses.

In this unit, you will improve your understanding of how horses learn and what you need to do when training horses in-hand and under saddle. You will develop knowledge of evidence-based training methods and the emerging field of equitation science and look at the methods used for training a variety of horses. You will identify and investigate the equipment, techniques and programmes used to introduce young horses to training and to develop or rehabilitate horses. You will consider behavioural and physical issues in a training context.

With your understanding of learning theory you will be able to progress to employment involving handling and riding horses or to further training and education, including research.

Learning aims

In this unit you will:

- A** Understand the principles of learning theory in equitation to improve your equitation and handling skills
- B** Explore methods used for training horses to optimise training efficiency and correct physical development
- C** Investigate procedures for preparing training programmes when training horses from the ground.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Understand the principles of learning theory in equitation to improve your equitation and handling skills	A1 Reinforcement and punishment A2 Non-associative learning A3 Associative learning	A report explaining learning theory and contemporary methods of training horses. Comparisons will be made between methods of training with regard to welfare, training efficiency and correct physiological development.
B Explore methods used for training horses to optimise training efficiency and correct physical development	B1 The training scales B2 Principles of training horses B3 Modern horsemanship	
C Investigate procedures for preparing training programmes when training horses from the ground	C1 Factors that affect training C2 Training aims C3 Training programmes	An investigative report into contemporary training programmes using case studies of different training aims.

Content

Learning aim A: Understand the principles of learning theory in equitation to improve your equitation and handling skills

A1 Reinforcement and punishment

Scope and effectiveness of behaviour reinforcement.

- Behavioural psychology terminology and concepts, to include:
 - positive reinforcement, e.g. addition of food, soothing voice tone, scratch at the withers; importance of choosing appropriate positive reinforcement for individual horses; clicker training, continuous reinforcement schedules, fixed-ratio and fixed-interval reinforcement schedules
 - negative reinforcement, e.g. removal of pressure from legs or hands, or bucking to remove rider/predator from the back
 - positive punishment, e.g. whipping; non-contingent punishment, fear and anxiety, fear associations, learned helplessness, abuse; addressing the cause, short-term spatial recall
 - negative punishment, e.g. removal of food; appropriate use for preventing titbit mugging.

A2 Non-associative learning

- Equine cognition, to include size of prefrontal cortex, recall ability, environmental stimuli that provoke responses.
- Habituation, to include:
 - definition and evolutionary context
 - examples of habituation uses when training horses, e.g. regular exposure to bicycles, dogs, the mounted rider
 - methodology, importance of correct handling during desensitisation, resolving issues such as head shy horses; training in extreme environments, e.g. police horses, stunt horses
 - habituating to the rider's aids, conflicting simultaneous aids, e.g. leg and hand together; causes of the unresponsive horse, reasons for conflict behaviours seen in riding horses, habituation to low-level punishment stimuli, e.g. children whipping horses
 - learned helplessness, to include definition, symptoms and causes.
- Flooding, to include the definition and examples of when flooding might occur, e.g. saddlery and other equipment.
- Sensitisation, to include:
 - definition and evolutionary context
 - uses in foundation training and re-training, timing of aids for stop and go signals, pressure escalation versus intensity/frequency of aid.

A3 Associative learning

Principles of associative learning and their relationship to training horses.

- Operant (instrumental) conditioning, to include:
 - theories of Edward Thorndike, Burrhus Frederic Skinner
 - methodology, links between signals and outcomes
 - discriminating between cues, importance of timing, releasing pressure
 - examples of using operant conditioning when training horses.

- Classical conditioning, to include:
 - theories of Ivan Pavlov
 - strengthening associations between stimulus and outcome, links made between two or more signals
 - methodology, unconditioned stimulus, unconditioned response, conditioned stimulus, conditioned response
 - primary reinforcers, including food or comfort, secondary
 - reinforcers, including the visual or auditory link, effects of poor timing and consistency, aversive stimuli of patting, accidentally reinforcing unwanted behaviours
 - classical conditioning when training horses, e.g. refining natural aids
 - shaping and habit forming.

Learning aim B: Explore methods used for training horses to optimise training efficiency and correct physical development

B1 The training scales

The value of the scales of training as set by British Dressage (BD).

- BD rules handbook, welfare of the horse, BD welfare procedure, members' code of conduct.
- Definition of the term 'way of going'.
- BD scales of training, definitions, how they promote welfare, training efficiency and correct physiological development, to include rhythm, suppleness, contact, impulsion, straightness, collection.

B2 Principles of training horses

Value of emerging field of evidence-based research.

- Evidence-based research, e.g. International Society of Equitation Science (ISES) mission and aims.
- Evidence-based training, e.g. ISES First Principles of Horse Training, to include:
 - training according to the horse's ethology and cognition
 - using learning theory appropriately
 - training easy-to-discriminate signals
 - shaping responses and movements
 - eliciting responses one at a time
 - training only one response per signal
 - forming consistent habits
 - training persistence of responses (self-carriage)
 - avoiding and dissociating flight responses (because they resist extinction and trigger fear problems)
 - demonstrating minimum levels of arousal sufficient for training (to ensure absence of conflict).

B3 Modern horsemanship

Overview of alternative popular methods of contemporary horsemanship.

- Linda and Pat Parelli, to include history and current format, Savvy Club and home study programmes, Parelli professionals and star ratings, 'horsenality', the seven games, online, liberty, freestyle and finesse, welfare, training efficiency and correct physiological development.
- Intelligent horsemanship, to include history and current format, career pathway to becoming a recommended associate, the Monty Roberts Preliminary Certificate of Horsemanship, Join-Up, welfare, training efficiency and correct physiological development.
- Range of alternative methods and practitioners, e.g. Hart's Horsemanship, Think Equus, Richard Maxwell; training efficiency and correct physical development; approach and philosophy.

Learning aim C: Investigate procedures for preparing training programmes when training horses from the ground

C1 Factors that affect training

- Static and dynamic conformation, conformational strengths and weaknesses, how conformation affects potential fitness and/or recovery from injury, conformation of types and breeds suited to specific sports/purposes.
- Horse and rider psychology, to include training to produce a confident horse, training errors that lead to conflict behaviours, training errors that lead to riders' lack of confidence, how to increase rider confidence including, e.g. neuro-linguistic programming, one-to-one coaching, self-help.
- Behavioural problems related to training, to include examples of behavioural problems, causes of conflict behaviours in the horse, overcoming previous bad experiences through correct consistent handling.
- Physical barriers, e.g. previous injury.
- Rider and horse fitness, to include comparisons between the unfit talented/trained horse and the fit untrained horse, effect of an unfit rider, e.g. lack of balance, concentration and coordination when tired.

C2 Training aims

Considerations when designing training aims.

- Breaking down the ultimate training aim of a variety of situations into training blocks of smaller achievable goals.
- The aim of training any horse should be to achieve consistent correct responses to light aids; define the phrase stimulus control.
- Appropriate training cycles, micro/meso/macro cycles, training diary.
- Assessment of horse, to include age, level of prior fitness and training, health records, behaviour.
- Young horses, to include aims of foundation training, e.g. tying up, accepting the weight of the rider, stop and go aids.
- Rehabilitating horses from injury, to include work for specific sites of injury, fittening work after horse has had a long period out of work, considerations towards mental state of the horse, physiotherapy regime, alternative therapies.
- Re-schooling, to include examples of conflict behaviours that might require re-schooling, e.g. hard mouth, dead to the leg aids, napping while hacking.
- Maintaining established horses, to include situations, e.g. riding school, training centre or downgraded competition horses, training scales, level of athletic ability, level of schooling, consistent appropriate rider.

C3 Training programmes

Considerations when designing training programmes for a variety of horses with different training aims.

- Protective equipment to include side reins, Pessoa training system, draw/running reins, horse walkers.
- Factors affecting the selection of equipment, e.g. forced positioning, physical and mental stress.
- Duration and frequency of ridden and non-ridden exercise.
- Environment, e.g. wet ground and soft tissue damage, slippery roads, hard surfaces and joint concussion.
- Facilities affecting regularity of exercise and type of exercise performed.
- School movements and gymnastic exercises, to include practical schooling in-hand, e.g. control of the legs, retraining responsiveness to the aids, safety.

- School movements to develop muscle tone and flexibility.
- Training scale.
- Gymnastic exercises to re-school jumping issues, e.g. rushing, refusing, running out.
- Physiotherapy, stretches, to include general maintenance stretches.
- Specific physiotherapy programmes, including dynamic mobilisation, core strengthening, balancing, use of poles and raised poles, importance of consistency.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand the principles of learning theory in equitation to improve your equitation and handling skills		
<p>A.P1 Explain the terms 'habituation', 'flooding' and 'learned helplessness' in relation to training horses.</p> <p>A.P2 Explain operant and classical conditioning when training horses.</p>	<p>A.M1 Assess how desired behaviours can be shaped when training horses to avoid conflict behaviours.</p>	
Learning aim B: Explore methods used for training horses to optimise training efficiency and correct physical development		<p>A.D1 Evaluate the effectiveness of methods of behaviour reinforcement when training horses.</p> <p>B.D2 Justify the practice of a selected training method against evidence-based research.</p>
<p>B.P3 Compare the British Dressage training scale to the International Society of Equitation Science First Principles of Horse Training.</p> <p>B.P4 Compare contemporary methods of horsemanship.</p>	<p>B.M2 Analyse how methods used for training horses promote welfare, training efficiency and correct physiological development.</p>	
Learning aim C: Investigate procedures for preparing training programmes when training horses from the ground		<p>C.D3 Evaluate factors that might affect or impede the training of horses.</p>
<p>C.P5 Explain training aims through a programme of achievable goals for two horses.</p> <p>C.P6 Explain factors that might affect the training of two specified horses.</p>	<p>C.M3 Analyse contemporary training programmes for different training aims.</p>	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aims: A and B (A.P1, A.P2, B.P3, B.P4, A.M1, B.M2, A.D1, B.D2)

Learning aim: C (C.P5, C.P6, C.M3, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- the internet, library resources on contemporary methods of horsemanship
- video footage of horses in training.

Essential information for assessment decisions

Learning aims A and B

For distinction standard, learners must consider the strengths and weaknesses of methods of behaviour reinforcement when training horses. Learners will examine comprehensively the effectiveness of using positive and negative reinforcement in initial training and subsequent shaping of desired behaviours.

Learners must select one training method for further investigation. They must use evidence-based research to prove that the training method selected maximises horse welfare, training efficiency and correct physiological development.

For merit standard, learners must present a carefully considered rationalisation of how to shape desired behaviours when training horses. They must examine thoroughly how to achieve training goals by reinforcing improvements in the horse's responses to our cues. Learners will detail the progression from basic attempts to consistent responses using correct terminology, for example positive and negative reinforcement. Learners must consider how to avoid conflict behaviours by suggesting alternate actions to flooding and methods of avoiding learned helplessness.

Learners must present a methodical and detailed examination of how methods used for training horses promote welfare, training efficiency and correct physiological development. Methods discussed in the pass criteria must look explicitly at questionable techniques that might impact the horse's physical or mental welfare and how the training methods promote relaxation and communication with the horse in order to learn with minimal stress.

For pass standard, learners must detail how exposure to a single stimulus results in desensitisation or sensitisation. Learners will define habituation, flooding and learned helplessness in relation to training horses to show they fully understand the terminology, for example flooding during girthing in foundation training. Learners will give an opinion on the long-term effects of these forms of learning. They must define clearly the terms 'operant' and 'classical conditioning' when training horses. Learners will examine the use of positive and negative reinforcement and give examples of their practical use, for example release of rein pressure, scratching the withers as a reward.

Learners must identify the main similarities and differences between the British Dressage training scale and the International Society of Equitation Science First Principles of Horse Training. Learners must further examine the advantages and disadvantages of following each system. They must research alternative contemporary methods of horsemanship and identify the similarities and differences between two different methods, for example Parelli and Intelligent Horsemanship. Learners will show depth of knowledge through selecting key principles and considering the advantages and disadvantages of both methods.

Learning aim C

For distinction standard, learners must examine comprehensively the factors that might influence horses' progression through training. Learners will consider factors that might distress the horses mentally and physically, linking experiences before, during and following the training programme. Learners should work directly from the information researched in the case-study source material.

For merit standard, learners must study the interrelationships between the two methods of training in the case studies. They must study key trends to examine the principles of contemporary training practices thoroughly.

For pass standard, learners must select two recent case studies of horses that have undergone foundation or re-training. The training aims must be different for each horse, for example retraining of a race horse, foundation training of a young horse or re-schooling conflict behaviours.

Learners should include a copy of the source material of both of their chosen case studies. Investigation into the source material will allow learners to make an assessment of the horse, for example age, health records, behaviour. Learners will identify and detail clearly a wide range of influencing factors that might have affected how readily the horses progressed through their training, for example horse psychology, physical barriers.

Using the source material, learners must identify key words and breakdown the ultimate training aim into a loose training programme of smaller achievable goals, such as desensitisation and relaxation. Achievable goals will be reviewed in depth, with consideration of equipment used, the training environment and additional therapy such as physiotherapy or body work.

Links to other units

This unit links to:

- Unit 8: Equine Behaviour
- Unit 12: Schooling Horses on the Flat
- Unit 16: Ground Poles and Gridwork for Horses
- Unit 17: Showjumping and Cross-country Courses
- Unit 19: Working Horses from the Ground
- Unit 20: Introduction to Equestrian Coaching.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- observation during work experience
- support from local equine business staff as mentors.

Unit 15: Riding Horses in the Open

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners develop an understanding of the relationship between rider fitness and control and coordination of the horse.

Unit introduction

Fitness is vital to achieving success in horse riding. Individuals who are serious about improving their performance will take part in a fitness training programme. Elite athletes develop and maintain high levels of fitness and take fitness training seriously but fitness is also important for hacking and light schooling. This unit focuses on developing the rider and providing a safe foundation for flatwork and jumping.

In this unit, you will assess your own fitness level and develop a training programme to improve your health and fitness. You will undertake a period of training, using exercises on and off horses to improve your control and coordination when riding. You will reflect on your progress and make links between your fitness and your effectiveness when riding. You will ride horses in groups on the roads following the advice given to horse riders in the Highway Code.

If you are looking to work in the equine industry, this unit will give you practical experience of riding in the open and on roads. The unit will help you prepare for further training or for higher education related to the riding of horses.

Learning aims

In this unit you will:

- A** Explore rider fitness to improve security and coordination while riding horses
- B** Undertake a fitness training programme to improve control and coordination when riding horses in open spaces
- C** Carry out riding on roadways that ensures the safety of horse, rider and other road users.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Explore rider fitness to improve security and coordination while riding horses	A1 Importance of rider fitness A2 Types of exercise and their benefits A3 Developing fitness plans	A fitness portfolio evidencing a fitness assessment chart, a personalised training programme plan, a reflective journal and video or photographic evidence of consolidating work riding in the open.
B Undertake a fitness training programme to improve control and coordination when riding horses in open spaces	B1 Developing fitness B2 Improving control and coordination on the horse	
C Carry out riding on roadways that ensures the safety of horse, rider and other road users	C1 The Highway Code C2 Saddlery and equipment A3 Riding on the roads in groups	A practical activity with accompanying video/photographic evidence, teachers' observation reports and learners' reports evidencing application of the Highway Code's rules for horse riders.

Content

Learning aim A: Explore rider fitness to improve security and coordination while riding horses

A1 Importance of rider fitness

Understanding the importance of rider fitness.

- How fitness affects the horse, to include:
 - crookedness, weak core, weight of rider, loss of balance and body shape
 - coordination, communication and causing injury.
- Preventing injury through warm-up, strength and conditioning work, and stretching.
- Benefits of fitness to the rider, to include:
 - position security and absorption of movement
 - control of body and improved coordination of application of the aids
 - stability of lower leg and core, leading to an independent seat
 - aerobic fitness lowers heart rate, blood pressure, fat stores and cholesterol levels
 - strength fitness increases bone strength, reducing the risk of fractures, and increases muscle fibre size and physical capacity
 - stretching to improve flexibility improves range of movement in the joints, speed of movement, improves muscular balance and decreases the chance of injury.

A2 Types of exercise and their benefits

Exercises to develop rider fitness that could be incorporated into personalised training programmes.

- Exercises off the horse:
 - balancing flexibility with strength training, e.g. Pilates, yoga
 - flexibility training, e.g. static stretching, ballistic stretching, proprioceptive neuromuscular facilitation (PNF) stretching, to include choice of exercises, number of repetitions, order of exercises and time
 - strength training, e.g. free weights, resistance machines, mucking out, to include choice of exercises, number of repetitions, order of exercises, sets, rest between sets and speed of movement
 - muscular endurance, e.g. circuit training, core stability training, medicine ball training
 - aerobic training, e.g. continuous training, Fartlek training, interval training, and to include running, cycling, swimming.
- Exercises on the horse/horse simulator:
 - exercises while mounted, stretching, flexing and balance work
 - position alignment, body awareness, using mental associative imagery, e.g. Centered Riding
 - work without stirrups, work in shortened stirrups, interval training.

A3 Developing fitness plans

Development of a personalised fitness plan to improve rider fitness and the practical undertaking of fitness assessments.

- Baseline assessment of fitness:
 - health questionnaire, resting heart rate
 - aerobic assessment, to include anaerobic threshold, work/rest ratios and monitor intensity, e.g. heart rate monitoring, talk test, observation
 - flexibility assessment, suitable exercises.
- Identifying weaknesses:
 - posture check, basic anatomy and rider biomechanics
 - asymmetry, weak sided, uneven body weight and centre of gravity
 - ridden assessment.
- Planning, goal setting, to include short-, medium- and long term, SMART (Specific, Measurable, Achievable, Realistic, Time-bound) targets, lifestyle, medical history and physical activity history.
- Warm-up, cool down.
- Flexibility, core strength, lower body control, stamina and pain prevention.
- Marginal gains, altering your training programme.
- Nutrition, basic fuel types and making good choices.

Learning aim B: Undertake a fitness training programme to improve control and coordination when riding horses in open spaces**B1 Developing fitness**

Practical activities both off the horse and on it to develop rider fitness.

- Monitoring of fitness training programmes, to include training diary, progression, attitude, motivation, links to goals, coach/instructor feedback and reviews, fitness indicators.
- Reviewing fitness training programmes, including measures of success against planned goals; modification of programme to achieve planned goals.

B2 Improving control and coordination on the horse

Rider fitness improves rider confidence, control and coordination of the horse when riding in open spaces.

- Riding horses in the open, e.g. bridleways, fields, paddocks.
- Goal setting, route planning, riding over varied terrain and concentration.
- Rider responsible for horse's speed and gait, rhythm and line, monitoring horse's balance and straightness.
- Correct position, to include good balance, strength of the legs, flexibility of the joints, forward inclination of the body, stirrup length, stability of the lower leg, contact and bridging the reins.
- Correction of positional faults, effect of rider positional faults on the horse.
- Riding in a group, riding as an individual.
- Dealing with horses that spook and shy and baulk.
- Use of negative and positive reinforcement, use of positive punishment.

Learning aim C: Carry out riding on roadways that ensures the safety of horse, rider and other road users

C1 The Highway Code

Theoretical knowledge of the Highway Code and how it keeps both horse and rider safe on the roads.

- Department for Transport (DFT) rules for horse riders (49 to 55), to include:
 - riding in poor light, riding at night
 - control of the horse, riding with others, awareness of horses' temperaments and leading other horses
 - rider position while mounted
 - risk assessment, carrying other people/objects
 - permissive routes, one-way streets, pavements, grass verges, footpaths, cycle tracks, bridleways, level crossings and Highway Act 1835.
- Recognition of road signs, signals and markings.
- Accident procedure when riding on the roads in a group.

C2 Saddlery and equipment

The selection of suitable saddlery and equipment to maximise horse and rider safety when riding on the roads.

- Safety equipment for the rider, to include:
 - securely-fastened helmet, Horses (Protective Headgear for Young Riders) Act 1990, the Horses (Protective Headgear for Young Riders) Regulations 1992, hat standards
 - types of light that can be carried when riding horses in poor light
 - reflective bands on arms and legs in poor light
 - clothing, to include suitable footwear, light-coloured or fluorescent clothing, reflective clothing, light-coloured gloves and tabards
- Safety equipment for the horse, to include:
 - well-fitted saddlery and equipment, saddlery and equipment in good condition
 - reflective leg bands/boots, reflective/fluorescent tail guard and exercise sheets
 - checking of saddlery and equipment.

C3 Riding on the roads in groups

Develop practical skills when riding on the roads in groups.

- Simulated road routes, hazards.
- Mounting, emergency dismount.
- Position when riding on the roads and negotiating junctions and roundabouts.
- Signalling, observation.
- Importance of courteousness to other road users.
- Riding in a group, control of the horse, communication.
- Identification of hazards, risk assessments.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Explore rider fitness to improve security and coordination while riding horses		
<p>A.P1 Explain own strengths and areas for improvement identified in own personal fitness assessment.</p> <p>A.P2 Produce own eight-week personal fitness training programme, covering ridden and non-ridden training.</p>	<p>A.M1 Analyse how own identified fitness strengths and weaknesses have affected the planning of the personal training programme.</p>	
Learning aim B: Undertake a fitness training programme to improve control and coordination when riding horses in open spaces		<p>AB.D1 Justify how the selected exercises will improve own physical fitness, security and coordination while riding.</p> <p>AB.D2 Evaluate the effectiveness of own fitness training programme in improving fitness, security and coordination while riding.</p>
<p>B.P3 Demonstrate own improved fitness using a reflective training journal to record the eight-week personal fitness training programme.</p> <p>B.P4 Perform ridden work safely in open areas on schooled horses.</p>	<p>B.M2 Demonstrate self-efficacy throughout the eight-week personal fitness training programme.</p> <p>B.M3 Perform ridden work in open areas independently and in harmony on a variety of horses.</p>	
Learning aim C: Carry out riding on roadways that ensures the safety of horse, rider and other road users		<p>C.D3 Evaluate own performance when riding on the road, including adherence to the Highway Code and selection of tack and equipment.</p>
<p>C.P5 Explain how the Highway Code can be applied to keep horses and riders safe.</p> <p>C.P6 Perform safe riding on the road on schooled horses.</p>	<p>C.M4 Analyse the effectiveness of the Highway Code's rules for horse riders.</p> <p>C.M5 Perform safe riding on the roads on schooled horses, demonstrating horse control, safe observation skills and clear communication to other road users.</p>	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aims: A and B (A.P1, A.P2, B.P3, B.P4, A.M1, B.M2, B.M3, AB.D1, AB.D2)

Learning aim: C (C.P5, C.P6, C.M4, C.M5, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- a gymnasium or gym equipment
- stopwatches
- appropriate clothing for exercise such as trainers and tracksuit
- indoor/outdoor arenas, paddocks and/or bridleways
- a variety of horses that are different in size, temperament and level of training
- quiet roads with limited passing traffic
- high-visibility and reflective tabards and horse clothing
- a teacher with a minimum vocational qualification of British Horse Society Assistant Instructor (BHS AI) or equivalent.

Essential information for assessment decisions

Learning aims A and B

For distinction standard, learners will articulate clearly the reasons for choosing the exercises they have selected in their eight-week fitness training programme. Learners must explain in detail how the exercises will improve physical fitness, security and coordination while riding. Throughout the fitness training programme, learners will monitor their progress and record a detailed account of their fitness journey in their training diary. Learners will show clear links as to how their improved fitness relates to their enhanced security and coordination while riding.

For merit standard, learners will examine in detail how identified fitness strengths and weaknesses have affected the planning of the personal training programme. Evidence could be in the form of a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis. Information must be specific to individual learners and will include consideration of realistic goals in light of facilities available and other external pressures, for example prior commitments or time available to train. Learners must approach their training journal logically and lay it out clearly, they must show that they are highly motivated across all areas of their training programme and show an in-depth approach to the eight-week plan. Evidence of undertaking physical activity must be recorded clearly. A more complex training journal might include, for example, a food diary, and will show learners' considerable self-motivation and adherence to their fitness plan. Learners will show greater improvement in their fitness levels than at pass criteria. Ridden work in open areas will be performed independently with minimal direction from the teacher on at least three different horses. Learners will ride confidently on a variety of horses, for example horses with a lively disposition or that might be unpredictable. Learners will show harmony, tact and feel through good coordination and control of the horses.

For pass standard, learners will plan, undertake and record the findings of a personal fitness assessment. Fitness assessments will be organised, supervised and signed off by the teacher to ensure honest recorded results. Learners will clearly identify their fitness strengths and areas for improvement and relate them to their coordination and their ability to control the horses that they ride. Learners will develop an eight-week personal fitness training programme using ridden and non-ridden exercises tailored to them and their fitness goals. Learners must undertake the fitness training programme and will demonstrate an improvement in their fitness by completing a final fitness assessment. The final assessment will be organised, supervised and signed off by the teacher to ensure honest results. Evidence should be recorded in a training diary that could be laid out in the style of an experiential learning cycle reflective journal. Learners must evidence their plan, reflect on their activities, monitor improvements, adjust their plan according to their experiences and make clear links between exercise and their ridden performance. Exercise not involving horses should be carried out in learners' own time; exercises on horses can be performed in class under supervision. Exercises can be performed where safety dictates – in an arena or in the open. Learners will build up their fitness so that they can undertake ridden work such as interval training or sustained work in light seat in the open, such as a paddock, cross-country field or bridleway. Assessment must be on at least three different calm, schooled horses in the open. Photographs and/or video should support witness statements and/or observation reports on practical riding activities.

Learning aim C

For distinction standard, learners must carefully consider their strengths and weaknesses when riding on the road and suggest alternative actions where necessary. Learners must discuss in depth how relevant the Highway Code is to them when they tack up and when they ride on roads.

For merit standard, learners will make a detailed examination of the Highway Code's rules for horse riders. Learners must study the interrelationship between potential accidents or incidents on the road and how the Highway Code is interpreted and followed by horse riders. Learners will tack up independently and fit fluorescent/reflective clothing to the horse and themselves. When riding calm horses that are well behaved in traffic, learners must ride safely by demonstrating excellent horse positioning, control and consideration towards other road users. Learners will actively observe their surroundings and communicate clearly with the other learners in their group.

For pass standard, learners must clearly detail the Department for Transport rules for horse riders and how the Highway Code should be applied to minimise the risk to horses and riders on the roads. Learners will give examples to show how horse riders should prepare themselves for riding on the roads and will identify common road signs, signals and markings. Written work should be based on labelled photographs of different situations, including evidence of learners' experiences of riding on the roads. Learners will be expected to tack up their own horses, wear fluorescent/reflective clothing, complete tack and equipment safety checks before mounting and ride safely at least three calm, well-schooled horses on the roads. Learners will ride in groups and will demonstrate courtesy towards other road users, regular observation of their surroundings, good control and positioning of the horse, clear signalling to other road users and obedience of the Highway Code. Photographs of learners riding on the roads should be used in learners' reports and be supported by witness statements and/or observation reports.

Links to other units

This unit links to:

- Unit 5: Horse Tack, Equipment and Rugs
- Unit 8: Equine Behaviour
- Unit 11: Horse Fitness
- Unit 14: Theory of Training Horses.

Employer involvement

Centres can involve employers in the delivery of this unit if there are local opportunities to do so. There is no specific guidance related to this unit.

Unit 16: Ground Poles and Gridwork for Horses

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners ride using ground poles and gridwork, developing the skills of the rider and the athleticism of the horse.

Unit introduction

Polework and gridwork are vital elements in the progressive training of both horse and rider. Ground pole designs can be interesting and imaginative and have wide-reaching purposes, from developing muscle tone and coordination to improving focus and quality of the gaits. Jumping through grids can be exciting and is an excellent method of building confidence and improving the technique of both the horse and the rider.

In this unit, you will learn safe and progressive methods of training horses over ground poles and jumping grids. You will demonstrate the ability to plan suitable exercises to develop the athleticism of the horse and the ability of the rider over a variety of ground poles. You will construct grids for jumping and demonstrate a safe riding technique while carrying out gymnastic jumping exercises.

This unit will help you progress to higher education courses that have practical riding modules or to employment in the equine industry such as rehabilitation, backing, competition groom or hunt staff.

Learning aims

In this unit you will:

- A** Understand the purpose and safe design of polework and grids for the development of horse and rider
- B** Explore how polework can develop athleticism in the horse
- C** Carry out gymnastic jumping to develop the skills of the rider.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Understand the purpose and safe design of polework and grids for the development of horse and rider	A1 Safe design and purpose of polework A2 Safe design and purpose of gridwork	A report on designs of ground poles and grids, with a detailed examination of how polework and gridwork develop the horse and the skills of the rider.
B Explore how polework can develop athleticism in the horse	B1 Assessing horse needs B2 Ridden polework B3 Loose schooling	Portfolio of evidence, to include: <ul style="list-style-type: none"> • assessment of the performance of three horses • design of polework exercises to promote the athleticism of the horse
C Carry out gymnastic jumping to develop the skills of the rider	C1 Building grids C2 Rider position and control of the horse	<ul style="list-style-type: none"> • practical ridden exercises • study of rider position.

Content

Learning aim A: Understand the purpose and safe design of polework and grids for the development of horse and rider

A1 Safe design and purpose of polework

The use and safe design of polework to develop both the horse and the rider.

- Use of walk, trot and canter poles, random scatter poles, serpentine, circles, mazes, distances.
- Advantage of poles when re-schooling horses and progressive training of horses.
- The development of the gaits, to include:
 - improving the horse's focus, stretching and lowering of the head and neck, rounding of the back, flexing of the joints, improving coordination
 - improving the quality of gait, developing rhythm and self-carriage
 - lengthening/shortening the horse's paces, maintaining balance.
- Raised trotting poles, alternating raised poles, raised poles in a fan, to develop a horse's cadence, flexibility and change the horse's posture/outline.
- Developing the rider, to include:
 - coordination when applying aids, adjustment of position, independent seat, control of body positioning
 - ability to focus on tasks, accuracy when riding over ground poles.

A2 Safe design and purpose of gridwork

Use of gymnastic jumping exercises over three or more related obstacles to develop both the horse and the rider.

- Fence types, to include cross rails, verticals, ascending spreads, oxers.
- Combinations, to include bounces, doubles, trebles, dog-legs, distances.
- Use of placing poles and guide rails, to include cross rails, sloping poles/A-frames.
- Progressive training to build horse and rider's confidence.
- Develop horse's rhythm, reflexes, ability, correct use of its body, straightness and the ability to adjust its own strides.
- Develop rider's position, independence, reflexes, balance, security and coordination.
- Develop muscle tone of the horse, to include upper neck muscles, shoulder and forearm, back, loin and second thigh.

Learning aim B: Explore how polework can develop athleticism in the horse

B1 Assessing horse needs

Assessment of the horse to identify strengths and areas for improvement through a plan of suitable exercises.

- Assessing the horse on the flat in all three paces, to include knowledge of the scales of training, transitions and responsiveness to the aids.
- Consideration of age, type, conformation, training level, physical weaknesses, character.
- Practical riding to assess issues with loss of balance, to include:
 - ridden changes of speed, pace and direction
 - use of horse's centre of gravity
 - horse straightness and bend.
- Considerations when developing ground pole exercise plans, to include individual horse's needs, realistic goal setting, time constraints.

B2 Ridden polework

- Use of walk, trot and canter poles.
- Use of scatter poles, fans, raised poles and mazes.
- Adjusting riding style to a variety of horses, taking into account consideration of age, type, conformation, training level, physical weaknesses, character.
- Reflection-in-action, adjusting exercises, evaluating usefulness of ridden exercises.
- The rider's position, to include independent seat, correct use of the aids, correct posture, balance and security, adjusting position.
- Environment considerations, e.g. indoor or outdoor arena, how these affect the horses.
- Safety, to include personal protective equipment (PPE), rules of the arena, riding in open order.

B3 Loose schooling

Loose schooling as a training tool.

- Safety, to include PPE, protective equipment for the horse, awareness of the loose horse and other learners in the arena.
- Clear aims, principles of progressive training, planning the loose schooling session, importance of calmness, rhythm and impulsion.
- Theoretical methods of loose schooling, e.g. using three learners, one to lead in, one to maintain forward momentum and one to reward the horse and catch it.
- Building a polework/high-sided jumping lane, correct distances are measured and high fences are used so that the exercise is challenging.
- Warming up the horse, in-hand or lungeing.
- Body language of the handlers, horse's response to body language, including natural horse-training techniques.
- Practical loose schooling through a lane of poles and/or jumps.
- Faults of the trainer, to include horse running out, refusing, rushing, over jumping, loss of confidence and how to deal with these issues; additional training method that should not replace ridden work.
- Development of the horse's independence, ability to see its own stride, maintain its own balance and develop style without hindrance of a rider.
- Benefits to the horse, to include rebuilding confidence after falls, rebuilding confidence from loss of technique due to bad riding.
- Benefits to the rider/trainer:
 - confidence from watching the horse clear obstacles
 - assess the horse's natural way of going
 - correct faults
 - safer method of training rather than jumping alone.

Learning aim C: Carry out gymnastic jumping to develop the skills of the rider

C1 Building grids

Building grids to agreed specifications to develop knowledge and practical understanding of jumping safely.

- Safety, distances between obstacles, progressive heights, heights no more than 0.91 m (3 ft).
- Using guide rails, to include cross rails, sloping poles.
- Using placing poles and ground poles, distances.
- Designing grids to resolve horse and rider issues, to include:
 - approaches in trot and in canter
 - rushing horses
 - refusals
 - foreleg and hind leg technique, engaging the hocks
 - unconfident riders
 - rider's control of the horse's stride length.
- Developing teamwork and communication skills while constructing the grids.

C2 Rider position and control of the horse

- Suitable warm-up exercises for jumping, consideration of other riders.
- Suitable cool-down exercises, welfare of the horse, consequences of poor aftercare.
- Safety, to include rules of the arena, PPE, e.g. hats, gloves and body protectors.
- Knowledge of the ideal position through the five phases of jumping.
- Practical riding over progressively built grids, the final obstacle should be no more than 0.91 m (3 ft).
- Correct approaches to the grid, riding on line.
- Responsibilities of the rider, to include:
 - gait, speed, rhythm, length of stride, line, energy, straightness of the horse
 - rider body language and how this is used to communicate with the horse
 - use of natural and artificial aids, how to improve the horse's response to the aids.
- Developing an independent secure position, to include:
 - balance, use of a neckstrap
 - contact through the reins, hand grip, opening hand, length of rein
 - reflex to follow the horse, degree of fold
 - correct use of the aids
 - consideration of the horse's welfare, not over jumping, thinking about body weight on horse's back and not pulling the horse in the mouth.
- Stability of lower leg:
 - strengths, to include correct contact at the horse's sides, stirrup leather verticality and recognising when it might need adjustment
 - faults, to include pinching at the knee, heels pulled back and up.
- Stirrup length, improving maintenance of balance.
- The five phases of jumping and adjustment of seat throughout each stage, e.g. contact with the saddle, riding in light seat, use of the modified seat.
- Influence of the upper body, the pushing effect of the seat.
- Understanding the effect of nerves and tension of the rider on the horse.
- Developing the horse's confidence, coordination, re-establishing or improving technique, introducing fillers to young horses.
- Physical limitations of the horse, maturity of the horse, level of training, pain.
- Dealing with stops and run-outs, causes.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand the purpose and safe design of polework and grids for the development of horse and rider		A.D1 Justify the use of own polework and gridwork designs to develop the skills of the horse and rider.
A.P1 Explain the use of own polework design when training horse and rider. A.P2 Explain the use of own gridwork design when training horse and rider.	A.M1 Analyse the use of own polework and gridwork designs when training horse and rider.	
Learning aim B: Explore how polework can develop athleticism in the horse		B.D2 Evaluate how the ridden assessment was used to develop athleticism in the horse. C.D3 Evaluate own confident ridden performance in gymnastic jumping on a variety of horses of different temperaments and levels of training.
B.P3 Explain how ridden assessments can be used to plan polework and gridwork exercises for horses. B.P4 Perform ridden exercises using poles and grids to develop horses' athleticism.	B.M2 Analyse own ridden assessments to plan polework and gridwork exercises to develop horses' performance. B.M3 Perform ridden exercises using poles and grids with tact and feel for the horse's way of going.	
Learning aim C: Carry out gymnastic jumping to develop the skills of the rider		
C.P5 Perform gymnastic jumping safely on schooled horses. C.P6 Compare own ridden jumping position to ideal.	C.M4 Perform gymnastic jumping in harmony and with an independent seat on schooled horses. C.M5 Analyse how own ridden position affects jumping performance of schooled horses.	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aims: B and C (B.P3, B.P4, C.P5, C.P6, B.M2, B.M3, C.M4, C.M5, B.D2, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- a library and the internet for research into polework and gridwork design
- indoor and outdoor arenas, jump poles between 9–12 inches long, jump wings and safety cups
- well-schooled jumping horses, horses of varying levels of training and of different temperament, appropriate safe saddlery for jumping, boots
- an instructor qualified to British Horse Society Assistant Instructor (BHSAI) or equivalent, e.g. UKCC Level 2.

Essential information for assessment decisions

Learning aim A

For distinction standard, learners must articulate clearly reasons why polework and gridwork develop the skills of horse and rider. Reasons should include the development of the rider's coordination when applying the aids, necessary adjustment of riding position, development of independent seat and control of body positioning, and the ability to focus on tasks and the accuracy of riding. Learners will give a detailed account of the links between their own polework and gridwork design and the development of horse and rider performance. They must make clear connections between the benefits of polework and gridwork on the development of horse and rider over a range of disciplines.

Portfolio evidence may include photographs or illustrations, to support their discussion.

For merit standard, learners must study the relationship between polework and gridwork when training the horse and the development of the mental and physical capabilities of the horse. Learners must make connections between their designs of polework and gridwork exercises, and the development of horse and rider performance.

For pass standard, learners will clearly detail and design polework and gridwork when training the horse and rider. Learners will illustrate various layout designs of ground poles and grids and label distances correctly. Learners must explain the purpose of each type of ground pole exercise and grid when training the horse and rider. All the unit content must be covered, including walk, trot and canter poles, random scatter poles, serpentines, circles, mazes, raised poles and fans, and grids approached from trot and canter.

Learning aims B and C

For distinction standard, learners must consider clearly how the ridden exercises develop the athleticism of the horse. Learners must give a methodical and detailed examination of whether the planned exercises improve the horse's athleticism. Learners will document the strengths and weakness of their plans, making adjustments where necessary and reflecting, in some depth, on reasons for the outcomes. Learners will refer specifically to the horse's way of going and the short-term development of the horse's gaits.

Learners must demonstrate an ideal jumping position when riding over grids on a variety of different horses. Learners must ride at least three different horses that vary in level of training and in temperament, for example young horses or lively ex-competition horses. Learners must be independent, confident and show all the practical skills evident in the merit criteria, but on a more challenging selection of horses. Video and/or clear photographic evidence must support teacher observation reports. Learners must use video and/or photographic evidence to critically appraise their own jumping position, including changes made in light of the horses' temperaments and level of training.

For merit standard, learners must consider carefully the horse's way of going, giving a thorough assessment of the horse and applying their ridden experiences to create effective polework and gridwork plans to develop horses' performance. Learners will perform the polework and gridwork exercises with tact and feel for the horse's way of going, showing a balanced, independent seat. Learners will ride horses according to their level of training.

Learners must perform gymnastic jumping on at least three calm and well-schooled horses. Learners will show a higher level of ability by demonstrating an understanding of how the ideal position allows the horse to jump freely and in balance, riding with tact and showing harmony with the horse.

Video and/or clear photographic evidence must support teacher observation reports. Learners must use video and/or photographic evidence to break down the elements of their own jumping position and critique its effectiveness when compared to the ideal.

For pass standard, learners must use the scales of training to assess three horses on the flat to plan polework and gridwork exercises to develop their athleticism. Learners must then build and ride their planned exercises over time. Raised poles must be included once in every horse's plan. Practical activities should be evidenced by developing case studies on each horse used and the completion of a training diary, using experiential learning cycles to record ongoing practical activities. Learners must detail the relationship between ridden assessments and training plans.

Learners must demonstrate gymnastic jumping on at least three calm, well-schooled horses. The final jumping effort must be up to and no more than 0.91 m (3 ft). Learners will take good lines of approach and recovery, maintaining a balanced and secure position throughout the grid and riding safely with due care and attention to the horse's welfare. Video and/or clear photographic evidence must support teacher observation reports.

Learners must explore similarities and differences between their own ridden jumping position and an ideal jumping position throughout the five phases of jumping, using video stills or photographs. Labelled illustrations should be included in the portfolio.

Links to other units

This unit links to:

- Unit 15: Riding Horses in the Open
- Unit 17: Showjumping and Cross-country Courses.

Employer involvement

Centres can involve employers in the delivery of this unit if there are local opportunities to do so. There is no specific guidance related to this unit.

Unit 17: Showjumping and Cross-country Courses

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners enhance their understanding of safe, effective jumping techniques, study basic course design and develop their own jumping skills over a variety of fences.

Unit introduction

The ability to jump horses over a variety of fences is a useful skill and a requirement for many people working in the equine industry.

In this unit, you will be able to practise and refine individual skill and technique for riding over courses of showjumps and cross-country style fences. You will review techniques for riding horses over fences and discuss effective jumping positions. You will identify the safety considerations for horse and rider when jumping different types of fences, the correct construction of showjumping courses and of simulated cross-country fences. Where resources allow, you will ride cross-country.

This unit will help you progress to further education, training or to a career in the equine industry such as becoming a competitive rider, horse trainer or coach.

Learning aims

In this unit you will:

- A** Understand the impact of course design on the safety and welfare of horse and rider
- B** Carry out showjumping over a variety of course designs
- C** Carry out safe jumping over solid obstacle courses.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Understand the impact of course design on the safety and welfare of horse and rider	A1 Health and safety A2 Course design and fence construction	A report detailing the health and safety measures taken by governing bodies to improve welfare and safety, combined with course designs for both showjumping and simulated cross-country.
B Carry out showjumping over a variety of course designs	B1 Building showjumping courses B2 Walking showjumping courses B3 Riding a variety of courses	A portfolio evidencing learners' ability to: <ul style="list-style-type: none"> • construct and ride over a variety of showjumping courses • walk and then ride over a variety of solid obstacle courses.
C Carry out safe jumping over solid obstacle courses	C1 Constructing simulated cross-country courses C2 Walking cross-country courses C3 Riding over solid obstacles	

Content

Learning aim A: Understand the impact of course design on the safety and welfare of horse and rider

A1 Health and safety

Advice and guidance on health and safety to prepare learners for riding over courses of show jumps and solid obstacles.

- Walking to course, risk assessments, to include:
 - weather, surface and ground conditions, terrain, open spaces
 - suitability of horses, rider capability, rider fitness
 - types and heights of fences
 - external factors, e.g. crowds, shadows, tannoy speakers.
- Personal protective equipment (PPE), riding hat to latest British Standards Institution (BSI) standard, safe footwear, body protectors, gloves, including clothing that should be worn when competing in British Showjumping (BS) and British Eventing (BE).
- BS and BE safe design of course and fences, frangible pins, course designer/builder, inspection.
- Checks to be made before warming up, to include:
 - tightness of girth, condition of saddlery, well-fitting saddlery, correct stirrup length for jumping, studs.
- Rules of riding in the arena as part of a group, to include:
 - passing left to left, keeping at least one horse's distance from the horse in front, red flag to the right and white to the left, dangers when riding as part of a group.

A2 Course design and fence construction

Theoretical knowledge to underpin practical skills of showjump and solid obstacle course design and construction.

- Course plan, number of obstacles, changes of direction, sequential numbering of courses, numbering of combinations.
- Definition of ground line, centre line, face, spread, height.
- Distances:
 - one, two and three non-jumping strides
 - related distances
 - bounces.
- Showjump course design in line with BS, to include:
 - seven numbered jumps in first round competition
 - 80% of course built to upper height limit
 - inviting and varied obstacles, to include verticals, ascending spreads, oxers/parallels
 - jumps that are light and easy to knock down
 - use of shallow cups for poles, flat cups for gates or planks, rounded edges, safety cups.
- Cross-country course design, knowledge of BE rules and regulations, including effect of terrain and environment.
- Knowledge of a variety of solid jumps:
 - arrowheads, corners, water, ditches, hedge/brush fences, roll tops, palisade, hanging logs, trakehner, tiger trap, sheep/pheasant feeder, sharks teeth, hayrack, table, banks, drops, steps, chair, combinations, e.g. coffin, bounce, angled fences
 - safety flags, numbered fences
 - portable cross-country fences, arena eventing, simulated fences.

Learning aim B: Carry out showjumping over a variety of course designs

B1 Building showjumping courses

Develop practical skills to correctly design and construct showjumping courses to improve the safety of training the horse and rider.

- Teamwork, the importance of good communication.
- Planning courses, to include correct distances, 80% of course up to height 0.91 m (3 ft), number of jumping efforts, style of fence, doubles and related distances, changes of rein, numbering the course.
- Correct construction of showjumping courses.
- Checks to jumping area, including safe storage of spare jump cups, checking distances, correct construction and numbering.

B2 Walking showjumping courses

Practical skills when walking showjumping courses, often following construction, will allow learners to safely plan the way they ride.

- Practical course walking, to include:
 - preparation of speed, balance and line
 - physical features that affect jumping of specific obstacles, including proximity to entrance gate/stables/other horses, light and shadow, style of fence, character of the horse
 - inspection of fences, how to ride each type of fence.

B3 Riding a variety of courses

Develop practical riding skills over showjumping courses using imaginative course design to improve both the horse and rider.

- Health and safety, to include:
 - riding hat to BSI standard, safe footwear, gloves, jodhpurs, chaps or long boots, body protector, checking girth before jumping, altering stirrup length.
- Warm-up, to include:
 - suitable exercises for the horse
 - riding the horse forward, relaxed, straight
 - riding transitions to improve energy and obedience, shortening and lengthening the canter
 - practice jumps, accuracy of corners and lines before commencing course.
- Riding over showjumping courses:
 - courses of at least seven numbered fences, including doubles and related distances, up to 0.91 m (3 ft)
 - rider position, to include good posture, independent seat, balance, security, light seat, shortened leathers, stability of lower leg, good contact
 - rider attitude, to include positive mental attitude, confidence, understanding style of the fence, harmony with horse, evaluation of horse and rider performance
 - control of the horse, to include correct use of the aids, balance on approach to the fence, control of speed, suitable corrections when dealing with refusals or run-outs, use of positive punishment.
- Appropriate cool down procedure, welfare of the horse, consequences of poor aftercare.

Learning aim C: Carry out safe jumping over solid obstacle courses

C1 Constructing simulated cross-country courses

Develop practical skills to correctly design and construct imaginative simulated cross-country courses to improve the safety of training the horse and rider.

- Practical construction of simulated cross-country fences, to include skinnies, corners, water trays, angled combinations.
- Course design using portable cross-country fences, to include correct distances, changes of rein, numbering the course, consideration of arena/paddock environment.

C2 Walking cross-country courses

Develop practical skills when walking a variety of competition ready cross-country courses to allow learners to appreciate the need for respect of the fences and to safely plan the way they ride.

- Practical course walking, to include:
 - visits to competition centres
 - simulated cross-country arena
 - preparation of speed, balance and line
 - physical features that affect jumping of specific obstacles, including trees and shadows, terrain, weather on the day, condition of landing/take-off
 - inspection of fences, how to ride each type of fence.

C3 Riding over solid obstacles

Develop practical riding skills over cross-country style courses using imaginative course design to improve both the horse and rider. Where possible learners should have the opportunity to ride over varied terrain.

- Health and safety, to include:
 - riding hat to BSI standard, safe footwear, gloves, jodhpurs, chaps or long boots, body protector, checking girth before jumping, altering stirrup length
 - horse saddlery and equipment, to include breastplates or neckstraps, boots or bandages, over-reach boots, studs when appropriate.
- Warm up, to include:
 - suitable exercises for horse and terrain
 - riding the horse forward, relaxed, straight
 - riding transitions to improve energy and obedience, shortening and lengthening the canter
 - accuracy of corners and lines before commencing course.
- Riding over solid obstacle courses:
 - simulated cross-country arena and/or on varied terrain in the open up to 0.91 m (3 ft)
 - rider position, to include good posture, independent seat, balance, security, light seat, shortened leathers, stability of lower leg, good contact, ability to alter length of rein, bridging the reins
 - rider attitude, to include positive mental attitude, confidence, awareness of ground conditions and terrain, style of the fence, respect for solid fences, harmony with horse, evaluation of horse and rider performance
 - control of the horse, to include correct use of the aids, balance on approach to the fence, control of speed, suitable corrections in dealing with refusals or run-outs, use of positive punishment.
- Appropriate cool-down procedure, welfare of the horse, consequences of poor aftercare.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand the impact of course design on the safety and welfare of horse and rider		
<p>A.P1 Explain the impact of course design on the safety and welfare of horse and rider.</p> <p>A.P2 Produce course designs for showjumping and simulated cross-country.</p>	<p>A.M1 Assess the value of planned course designs.</p>	<p>A.D1 Justify how course design can develop safe riding position and technique.</p>
Learning aim B: Carry out showjumping over a variety of course designs		
<p>B.P3 Produce a variety of correctly constructed showjumping courses.</p> <p>B.P4 Perform safe and secure showjumping on schooled horses.</p>	<p>B.M2 Demonstrate the ability to ride with an independent seat and in harmony with a variety of schooled horses over showjumping courses.</p>	<p>B.D2 Demonstrate the ability to ride horses of varying temperaments and levels of training confidently and in harmony over showjumping courses.</p>
Learning aim C: Carry out safe jumping over solid obstacle courses		
<p>C.P5 Explain the importance of course walking.</p> <p>C.P6 Perform safe cross-country style jumping on schooled horses over courses of solid obstacles.</p>	<p>C.M3 Analyse the courses walked from the horse's viewpoint.</p> <p>C.M4 Demonstrate the ability to ride courses of solid obstacles in harmony with an independent seat on a variety of schooled horses.</p>	<p>C.D3 Demonstrate the ability to effectively course walk and subsequently ride horses of varying temperaments and levels of training confidently and in harmony over courses of solid obstacles.</p>

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aims: B and C (B.P3, B.P4, C.P5, C.P6, B.M2, C.M3, C.M4, B.D2, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- an enclosed riding arena, suitably fenced with a safe, non-slip surface
- a selection of jump wings, poles and gates/planks for showjumping
- a selection of portable cross-country fences for arena jumping, poles and blocks to construct simulated cross-country style jumps
- a suitable outdoor area or field to practise showjumping and cross-country fences, cross-country course on varied terrain desirable but not essential
- a British Horse Society Assistant Instructor (BHS AI) or qualified and experienced instructors or coaches who are up to date with their own technical training
- a variety of horses capable and willing to jump the height necessary for learners to achieve at this level, together with the associated tack and equipment.

Essential information for assessment decisions

Learning aim A

For distinction standard, learners must provide a clearly reasoned rationale for how their course designs could develop safe riding position and technique. They will clearly evidence how the positioning and construction of the fences affect the phases of jumping and therefore the ability of the rider to develop a safe riding position and improve their technique. Learners will articulate clearly the impact of good course design on the horse and rider, particularly at lower levels.

For merit standard, learners must carefully consider the value of their planned course designs. They must breakdown each aspect of their course design by looking at all the varied factors that may influence how their plans are ridden. Learners must identify factors that might have the most impact on horse and rider and explain why they have designed the courses as they have. Learners must specify how they have minimised risks according to placement and construction of the jumps and from following governing body rules and regulations.

For pass standard, learners must clearly detail the measures that BS and BE take to minimise risk to the horse and rider when jumping. Learners will consider the placement and construction of the fences and how courses are made inviting and progressive at lower levels. Learners must include examples of health and safety regulations for both governing bodies. They will consider how training over simulated cross-country fences can improve the technique of the horse and rider.

Learners will plan and illustrate six courses; three for showjumping and three for simulated cross-country. The courses should be planned with due consideration to the safety and welfare of both horse and rider. The showjumping courses should be progressive, 80% of the course should be built to upper height limit and include seven numbered obstacles, including verticals, ascending spreads, oxers/parallels and at least one double. The course design for simulated cross-country should be imaginative, using resources available to improve the technical ability of horses and riders over solid obstacles, for example courses could include corners, arrowheads, water tray. Evidence of further investigation into training methods will be necessary to demonstrate an understanding of safe jumping techniques.

Learning aims B and C

For distinction standard, learners must ride confidently and with consideration for the horse's welfare over showjumping and cross-country style courses up to 0.91 m (3 ft). Learners will ride effectively with minimal force or obvious effort and be independent throughout their course walk, warm-up, jumping round, cool down and aftercare of the horse. Learners will jump at least three horses of varying temperaments and levels of training over both show jumps and solid obstacles. The horses might be young, lack training or be bold ex-competition horses. Learners must evidence their course walking through oral discussion with their teacher, supported by observation reports or annotated photographs of the courses ridden.

For merit standard, learners must ride in harmony with the horse over a variety of showjumping and cross-country style courses up to 0.91 m (3 ft). Learners will demonstrate an independent seat, for example the ability to coordinate aids and maintain balance without interfering with the horse. Learners should ride at least three different well-schooled horses when showjumping, and another three different well-schooled horses cross-country or over a simulated cross-country course. Learners will be confident on the well-schooled horses and the ridden performances should flow smoothly. Learners will deal with refusals, run outs and stops appropriately; they should look harmonious and be effective while riding.

Learners will give a methodical and detailed examination of walking cross-country and simulated cross-country courses from the horse's viewpoint. Learners must study in depth the impact of terrain, going and other physical influences on the horse.

For pass standard, learners must build a variety of correctly constructed showjumping courses. Learners will use the three plans they designed for assessment in this unit and will lead a team of learners to construct the courses designed. The showjumping courses should be progressive, 80% of the course should be built to upper height limit and include seven numbered obstacles, including verticals, ascending spreads, oxers/parallels and at least one double. Learners will number the course and check for safety before riders enter the arena. Photographs, witness testimonies and/or observation records must be included in the portfolio of evidence.

Learners will jump courses up to 0.91 m (3 ft) on at least three different well-schooled horses. Learners will be expected to walk each showjumping course and warm-up their horse in a suitable manner, using exercises appropriate to the individual horse. Learners will demonstrate a safe and secure riding position while showjumping. Learners will ride correct approaches to each fence and establish a rhythm. Photographic or video evidence must support witness testimonies and/or observation records of practical activities.

Learners must clearly detail the importance of course walking. Learners will provide evidence of walking a variety of courses, including cross-country courses at competition venues and of simulated cross-country courses. Learners must give reasons for walking a suitable riding route and identify external factors that might influence the horse and rider. Evidence should include course plans and labelled photographs.

Learners must perform safe cross-country style jumping on schooled horses over courses of solid obstacles of no more than 0.91 m (3 ft). Learners must demonstrate a secure and balanced position over a variety of fences on at least three different horses. Where resources allow students should be jumping solid, fixed, traditional cross-country fences to demonstrate riding over varied terrain. Imaginative use of arena jumping combined with use of a paddock or field with simulated or portable cross-country fences is permitted.

Links to other units

This unit links to:

- Unit 15: Riding Horses in the Open
- Unit 16: Ground Poles and Gridwork for Horses.

Employer involvement

This unit would benefit from employer involvement in the form of:

- This unit would benefit from employer involvement in the form of:
 - guest speakers
 - technical workshops involving staff from local equine businesses
 - contribution of ideas to unit assignment/project materials
 - opportunities for observation of during work experience
 - support from local equine business staff as mentors.

Unit 18: Estates Skills and Grassland Management

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners develop the skills needed to maintain the structures, surfaces, boundaries and services that are essential for meeting the needs of horses, whether kept at grass or in stables.

Unit introduction

Managing a stables means you need to maintain, repair and install a variety of different structures, surfaces, fences and services to ensure the stables work efficiently. You may be required to maintain grassland for pasture and ensure horses kept at grass are secure and their needs are met.

In this unit, you will develop the knowledge and skills needed to manage the repair, maintenance and installation of the fabric of a well-run stable and ensure paddocks are suitable for horses.

You will learn to plan, implement and reflect on maintenance tasks, including those you carry out yourself, and those completed by others such as staff or professional contractors, whose work you will manage.

This unit will give you the skills required to progress to employment as a stable manager, rescue centre manager or a stud supervisor. It also gives an excellent introduction to a degree in estate management.

Learning aims

In this unit you will:

- A** Explore estate skills and grassland management for the equine industry
- B** Undertake estate skills and grassland management tasks to improve equine management
- C** Carry out the management of others engaged in estates and grassland tasks for an equine establishment.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Explore estate skills and grassland management for the equine industry	A1 The nature and scope of estate skills for equine management A2 Assessing needs A3 Planning tasks	A portfolio of evidence that plans for equine estate management projects. The portfolio should include: <ul style="list-style-type: none"> • surveys • relevant legislation and codes of practice • a plan, including schedules and specifications.
B Undertake estate skills and grassland management tasks to improve equine management	B1 Working safely B2 Practical estates tasks B3 Reflecting on tasks undertaken	Evidence of tasks carried out and reflection on task outcomes, to include: <ul style="list-style-type: none"> • logbooks, observation records and witness statements of tasks undertaken • a review of task outcomes.
C Carry out the management of others engaged in estates and grassland tasks for an equine establishment.	C1 Workforce management C2 Supervise estate skills undertaken C3 Evaluate estate skills tasks completed	Evidence of the management of others in carrying out tasks, to include: <ul style="list-style-type: none"> • an evaluation framework that includes task outcome and workforce management • observation records and witness statements that demonstrate supervision and management of scheduled tasks • a review of the outcomes of tasks carried out by others • a review of own management of a workforce.

Content

Learning aim A: Explore estate skills and grassland management for the equine industry

A1 The nature and scope of estate skills for equine management

Understanding the form and function of elements that make up the establishments where horses are managed.

- Boundaries to contain horses, including:
 - field boundaries, including electric fencing, stock fencing and post and rail fencing
 - arena boundaries, including post and rail fencing.
- Surfaces, including:
 - paths, tracks, runs, arenas and accommodation flooring, grassed surfaces
 - drainage of surfaces, including field drains.
- Structures to provide for equine management, including:
 - field structures, e.g. field shelters, stiles and way markers, gates and water troughs
 - internal structures, e.g. drinkers, stall furniture and feeders
 - jumps, including ensuring compliance with health and safety regulations
 - finishes, including paints, varnishes and preservatives.
- Supply, distribution or storage of mains services and utilities, including:
 - water and gas, including bottled gas, electricity, fuel oil
 - sewerage, including mains, cesspit and septic tank.
- Materials, tools and construction methods used for estate skills tasks:
 - basic construction materials, e.g. wood, concrete, wood chip, tarmac, Type 1 aggregate, fencing, galvanised sheets, polypropylene piping
 - common, specialist tools and basic test equipment, e.g. circuit tester
 - fixtures and fittings, e.g. hinges, locks, ball valves, pipe connections
 - selection, transport, maintenance and storage of tools, materials and equipment.

A2 Assessing needs

Inspection of boundaries, surfaces, structures, services and grassland.

- Inspecting boundaries, surfaces and structures for the maintenance, repair, construction and installation needs.
- Inspection and basic fault-finding of electrical circuits and devices using non-contact test equipment.
- Inspection of drainage, gas and water services for leaks and blockages.
- Paddock checks:
 - grazing quality and quantity
 - fences for dangerous or missing nails, breaks, stability and cribbing
 - hedgerows for gaps
 - electric fences for power, breaks and short circuits
 - gates for breaks, stability and security
 - water troughs and containers for leaks and spills, frozen surfaces and contamination
 - trees for fallen branches and exposed roots
 - field shelters for damage and stability
 - molehills and rabbit burrows
 - sharp stones and litter
 - poisonous plants
 - poaching, especially near troughs, gates and feeders.
- Methods and processes for reporting inspection findings, to include verbal and written, use of appropriate maps, plans and diagrams.

A3 Planning tasks

The application of regulations and specific, current regulations and guidance notes relevant to estate skills for equine management, including health and safety at work and those relating to animal welfare.

- Government welfare codes of practice for specific animals, including codes of recommendations for the welfare of horses.
- Use of risk assessments, their purpose and types, including static, dynamic, qualitative and quantitative.
- Correct selection and use of personal protective equipment (PPE).
- Assessing the task, including measuring, estimating, use of maps, diagrams and plans.
- Creating and using schedules of tasks.
- Job specifications, to include job description and rationale, timescales, tools, equipment, materials, location of work, costs, skillsets, health and safety considerations, environmental issues and supervising arrangements.
- Sourcing tools, equipment, materials, skillsets, e.g. internal workforce, external contractors.
- Processes and aids to planning tasks, including budgets, schedules and flowcharts.
- The use of IT in raising and monitoring repair and maintenance tasks.
- Communications with contractors and employees to ensure efficient planning.

Learning aim B: Undertake estate skills and grassland management tasks to improve equine management**B1 Working safely**

- Compliance with appropriate health and safety regulations and guidance, e.g. PPE, animal welfare.
- Selecting the correct tools, equipment and materials.
- Transporting tools, equipment and materials.
- Preparing the work area.
- Correct and safe use of tools and equipment.
- Waste disposal in accordance with regulations.
- Maintaining and storing tools, equipment and materials.

B2 Practical estates tasks

- Maintenance, repair construction and installation of:
 - boundaries, to include post and rail fencing, hedgerows, electric fencing and strained fencing, e.g. stock or chain link fencing
 - surfaces, to include aggregate or concrete, wood chip, wood, sand or artificial products, e.g. rubber or fibre for equestrian surfaces
 - structures, e.g. field shelters, gates, stalls, troughs, feeders, stiles
 - drainage, e.g. unblocking drains or field drains, clearing an open ditch
 - isolation of mains services in the event of leaks or for maintenance, repair, construction and installation tasks
 - basic repair of electrical appliances or circuits, e.g. changing a plug or fuse, resetting a circuit
 - use of basic equipment to locate underground or hidden services
 - installation of temporary electrical supply for both indoor and outdoor power requirements, e.g. extension leads, electrical fence batteries, small generators
 - repair, maintenance or installation of systems to supply water, e.g. to a water trough or to allow a tap and hose to be connected to an existing system.
- Maintaining paddocks, to include picking droppings, harrowing, topping, seeding, spot weeding, including poisonous plants, drainage.

B3 Reflecting on tasks undertaken

Process for reviewing the tasks undertaken to assess the impact on equine management, to include:

- matching skills to tasks
- taking account of problems that arise and using problem-solving techniques
- comparing the time taken with the time allocated and the time needed
- identifying inefficient working practices
- monitoring actual costs against estimates and identifying cost overruns
- examining specifications to improve clarity and eliminate ambiguity
- monitoring compliance with regulations, guidance and advice notes
- assessing communication to identify improvements.

Learning aim C: Carry out the management of others engaged in estates and grassland tasks for an equine establishment**C1 Workforce management**

- Identifying skill sets, e.g. internal workforce, external contractors.
- Communicating maintenance, repair, construction and installation needs to in-house teams and outside contractors, to include raising orders, issuing instructions orally and in writing, getting estimates and quotations, commissioning contractors and understanding contracts.
- Using written communication skills:
 - using correct spelling, punctuation and grammar
 - adopting different styles, including formal and informal.
- Using oral communication skills:
 - using tone, inflexion and style when speaking
 - using aids, e.g. maps and plans
 - using questions to check workforce understanding and gather information.

C2 Supervise estate skills undertaken

- Ensuring the work is proceeding according to expectations, e.g. site visits, problem solving and evaluating the progress of estate skills tasks, ensuring compliance with specifications, regulations and codes of practice and risk assessments.
- Using problem-solving skills to assess issues, examine alternative solutions, decide on a course of action, implement solutions and monitor outcomes.

C3 Evaluate estate skills tasks completed

Using evaluation frameworks to enable assessment of completed tasks and workforce management.

- Creating evaluation frameworks using details of the original specification as a checklist.
- Evaluating completed products, including compliance with specifications, regulations and codes of practice and risk assessments.
- Communicating evaluation outcomes, ensuring correct task completion, including situations where there is a dispute.
- Creating evaluation frameworks for assessing workforce management, to include:
 - selection of workforce
 - communication of task
 - supervision of work in progress
 - application of problem-solving skills
 - feeding back on outcomes of task.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Explore estate skills and grassland management for the equine industry		A.D1 Justify the schedule produced for the management of equine estate and grassland tasks resulting from own surveys undertaken.
A.P1 Explain findings of own surveys undertaken to establish equine estate and grassland needs. A.P2 Plan for the management of an estate or grassland task.	A.M1 Analyse the results of own surveys undertaken to produce a schedule for the management of equine estate and grassland tasks.	
Learning aim B: Undertake estate skills and grassland management tasks to improve equine management		B.D2 Evaluate the standard of own equine estate and grassland tasks undertaken in relation to job specifications.
B.P3 Perform simple estate skills tasks for paddocks, boundaries, surfaces, structures and mains or temporary services to an agreed specification. B.P4 Explain how own equine estate and grassland tasks undertaken meet job specifications.	B.M2 Perform complex estate skills tasks for paddocks, boundaries, surfaces, structures and mains or temporary services, to an agreed specification and within an agreed timescale. B.M3 Assess own performance in carrying out equine estate and grassland tasks to meet job specifications.	
Learning aim C: Carry out the management of others engaged in estates and grassland tasks for an equine establishment		C.D3 Evaluate own workforce management of a complex estate skills or grassland task, detailing improvements.
C.P5 Demonstrate the management and supervision of a simple estate or grassland task. C.P6 Explain the effectiveness of own workforce management of an estate skills or grassland task.	C.M4 Demonstrate the management and supervision of a complex estate or grassland task. C.M5 Analyse the effectiveness of own workforce management of an estate skills or grassland task, identifying areas for improvement.	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of three summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aim: B (B.P3, B.P4, B.M2, B.M3, B.D2)

Learning aim: C (C.P5, C.P6, C.M4, C.M5, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- a range of common and specialist hand tools, including power tools and testing equipment
- suitable PPE
- a wide range of suitable estate skills tasks, including the provision of mains and temporary services.

Essential information for assessment decisions

Learning aim A

For distinction standard, learners must conduct surveys of equine estates and grasslands. They must use a range of appropriate test equipment independently and proficiently. They will readily understand complex estate skills and grasslands issues, considering causes and making connections with usage and consequences if unaddressed, exploring the situation thoroughly. Learners must present meticulous findings in the form of annotated maps, plans, diagrams and accompanying notes. They will be assured in their assessment of issues and their decisions in respect of repair, maintenance or installation needs.

Learners will produce comprehensive and flexible plans, reprioritising tasks where appropriate in order to use time and resources efficiently. Plans will include a detailed appraisal of work required and a thoroughly considered, time-specific schedule of work. Learners must give a clear rationale for all their recommendations, demonstrating detailed awareness of the influence of relevant governing legislation and codes of practice, and the impact on the establishment if the work is delayed or not completed. Job specifications produced will be comprehensive.

For merit standard, learners must conduct surveys of equine estates and grasslands. They must use a range of appropriate test equipment safely and without supervision. They will interrogate the causes of issues, suggesting remedial action and, where appropriate prevention, in relation to repair, maintenance or installation needs. They will explore the complexity of faults and issues, considering less obvious factors. Learners must present detailed findings in the form of annotated maps, plans, diagrams and accompanying notes.

Learners will plan proactively with clear timescales for repair, maintenance and installation needs. Their plans will clearly demonstrate an understanding of the need to prioritise work and an appreciation of realistic timescales and resources. Their planning must demonstrate a detailed assessment of the work required and a time-specific schedule of work. Consideration must be given to relevant governing legislation and codes of practice. Job specifications produced will be clear and detailed.

For pass standard, learners must conduct surveys of equine estates and grasslands. They must use a range of appropriate test equipment, under supervision where necessary. Learners will understand major issues and correctly identify methods of repair, maintenance or installation. They must record correct findings appropriate to each situation surveyed, presenting the information in the form of annotated maps, plans, diagrams and accompanying notes. The notes and annotations must give clear reasoning for their findings.

Learners' plans will address key repair, maintenance and installation needs, correctly prioritising works using broad timescales. Where appropriate, their plans will take into account governing legislation and codes of practice. Job specifications produced will contain key information.

Learning aim B

For distinction standard, learners must carry out complex tasks that require multiple operations, using appropriate equipment and a variety of tools and materials. Tasks will be undertaken efficiently, accurately and completely, meeting the specification. Learners will work to a professional industry standard and they will comply with best workplace practice.

Learners must review the qualitative standard of practical work undertaken to improve the completion of tasks, supporting their views with reasoned judgements.

For merit standard, learners must carry out complex tasks that require multiple operations, using appropriate equipment and a variety of tools and materials. Tasks will be undertaken efficiently, accurately and completely, meeting the specification. They will work to the standard of a competent employee.

Learners will demonstrate best workplace practice by working safely and in accordance with relevant legislation, ensuring the workplace is prepared and cleared. They will understand the need for, and demonstrate, correct tool, material and equipment procedures, including selection, use, transport, maintenance and storage.

Learners must review their work in light of the job specification and the standard achieved, giving valid suggestions for improvements in tasks.

For pass standard, learners must carry out simple estate skills and paddock tasks, requiring few operations and a limited range of tools and materials. Tasks will be undertaken efficiently, accurately and completely, meeting the specification. They will work to the standard of a novice employee.

Learners will demonstrate acceptable workplace practice by working safely and in accordance with relevant legislation, ensuring the workplace is cleared after task completion. They will demonstrate correct tool, material and equipment procedures, including selection, use, transport, maintenance and storage.

Learners will review their work in light of the job specification.

Learning aim C

For distinction standard, learners must carry out effective and comprehensive workforce management that demonstrates clear, concise, unambiguous, oral and written communications suited to the recipient, such as contractors or colleagues.

Learners will delegate responsibilities appropriately according to skillsets and resources. They will monitor and assess task progression, advising only when necessary, using positive and flexible problem-solving skills when needed. They will assess the completed task against the specification and communicate their findings concisely and assertively.

Learners will draw up a valid and reliable evaluation framework to use when assessing their management of completed tasks. They will identify specific areas where their management of the task could have improved efficiency, safety or cost-effectiveness, and will make valid recommendations that would achieve this.

For merit standard, learners must demonstrate they can communicate clearly and appropriately with a workforce, such as contractors or colleagues, both orally and in writing.

Learners will delegate responsibilities. They will accurately assess the progress of a complex task and demonstrate problem-solving skills when needed. They will communicate appropriately their assessment of the progress of a task.

Learners will draw up an accurate evaluation framework to use when assessing workforce management. They will make recommendations for improvements in their own performance.

For pass standard, learners must demonstrate that they can issue simple workforce instructions, both orally and in writing.

Learners will carry out supervision of tasks, including checks on progress and identifying obvious issues that may hinder task completion to the specification. Where problems occur, learners will make suggestions and may intervene directly. Learners will provide basic feedback to the workforce on the progress of the task.

Learners will draw up a simple evaluation framework to use when assessing their management of the workforce, identifying their own strengths and weaknesses.

Links to other units

This unit links to *Unit 4: Work Experience in the Equine Sector*.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- opportunities for observation during work experience
- support from local equine business staff as mentors.

Unit 19: Working Horses from the Ground

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners study the techniques for training horses from the ground and develop the skills for using these techniques in practice.

Unit introduction

When working with horses, it is important that you understand the principles of ground schooling techniques. Non-ridden exercise is beneficial in the training of horses and is a key element of their ongoing education.

In this unit, you will study and carry out a range of ground schooling techniques, including lungeing, long reining and working in-hand. You will develop skills that will help you to recognise the different ways in which horses move and perform when being exercised from the ground. Ground schooling techniques are an effective measure of a horse's performance and welfare so you will observe and evaluate different techniques.

Equine groundwork is an important skill in the horse industry. This unit will help you progress to higher education courses in, for example equine behaviour and management, to further training in the equine industry or to employment, for example as a competition groom, in rehabilitation work or in assistant yard management.

Learning aims

In this unit you will:

- A** Understand techniques for working horses from the ground to maintain their health and fitness
- B** Carry out safe lungeing procedures to maintain equine health and fitness
- C** Undertake ground schooling of horses to support equine performance and welfare.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Understand techniques for working horses from the ground to maintain their health and fitness	A1 Training horses from the ground A2 Equipment and techniques	A portfolio reporting on training techniques and equipment for working horses on the ground and evidencing safe practices when lungeing horses.
B Carry out safe lungeing procedures to maintain equine health and fitness	B1 Working horses safely on the ground B2 Equipment and fitting B3 Exercising horses on the ground	
C Undertake ground schooling of horses to support equine performance and welfare	C1 Assessment of horse C2 Ground schooling A3 Reflective practice	Portfolio evidencing groundwork activities and best practice, using different exercise techniques supported by witness statements.

Content

Learning aim A: Understand techniques for working horses from the ground to maintain their health and fitness

A1 Training horses from the ground

Underpinning theory of methods of working horses from the ground to improve the horse's athletic potential and to support ridden exercise.

- Ways to train horses from the ground, including lungeing, long reining, loose schooling, traditional and alternative methods of schooling in-hand, e.g. Parelli seven games, traditional methods taught by the Spanish Riding School.
- Reasons for working horses on the ground:
 - initial training of young horses, e.g. prepares horses for riding, creates a partnership, develops confidence
 - development and use of different gaits, including walk, trot and canter
 - development of movements and lateral work to advance schooling, e.g. square halt, reinback, shoulder-in
 - skills development and performance of the person, to include ability to lunge competently, effectiveness of the voice and approaches used
 - performance of the horse, to include movement and engagement, reactions to voice commands and transitions
 - fitness and muscular development, e.g. fitness for different disciplines such as dressage and eventing
 - stimulation, e.g. mental stimulation, provides alternative exercise without weight of rider.
- Effects on performance, health and welfare:
 - benefits to the horse, e.g. bond with handler, develops suppleness, increases obedience to the aids
 - frequency and amount of exercise for different physiological states to include age, ability and level of fitness
 - reasons for and against using training aids, to include forced positioning of horse's frame, learned helplessness.

A2 Equipment and techniques

Underpinning theoretical knowledge of training aids in common use, techniques and protocols for working horses from the ground safely.

- Preparation, to include handling, working in-hand, lungeing, long reining, loose schooling:
 - equipment for the horse, including boots, lunge cavesson, bridle, lunge roller or saddle
 - clothing for the handler/trainer to include BSI standard riding hat, gloves, suitable footwear.
- Types of training aids for working horses on the ground, including side reins, chambon, Pessoa, de Gogue, bungee:
 - advantages and disadvantages of using different equipment
 - problems associated if used incorrectly, to include effects on horse welfare and safety
 - correct horse posture shaping without training aids.
- Correct techniques and protocols to ensure the welfare and safety of the horse and trainer, to include handling and exercise, approach to different horses.

Learning aim B: Carry out safe lungeing procedures to maintain equine health and fitness

B1 Working horses safely on the ground

Knowledge of positioning self and basic practical handling techniques to maximise safety when working horses from the ground.

- Health and safety protocols for working with horses from the ground, to include:
 - safe handling techniques
 - personal protective equipment (PPE)
 - rules of the working environment (arena)
 - risk assessment, hazards, e.g. horse biting, kicking.
- Correct handling techniques to ensure the safety of the handler and the horse, and to promote equine welfare.

B2 Equipment and fitting

Selecting, fitting and adjusting suitable tack and equipment when lungeing.

- Correct selection of equipment for exercise, to include:
 - appropriate tack and equipment for lungeing to include bridle, lunge cavesson, lungeing roller, saddle, numnah/saddle cloth, bandages, boots, training aids, e.g. side reins, bungee, chambon
 - checking for fit.
- Observation of equipment fitting during exercise, to include:
 - adjustment of equipment before exercise, e.g. securing equipment for safety during warm-up
 - adjustment of equipment after warm-up and before cool down.

B3 Exercising horses on the ground

Practical lungeing, long reining and working in-hand.

- Positioning self in a shared working environment.
- Timing exercise intervals.
- Warm-up, to include basic assessment of horse, e.g. strengths and weaknesses, level of fitness and training.
- Period of work, equally balanced on both reins, duration and intensity, adjustment of training aids.
- Cool-down procedures, duration, removal or loosening of training aids.
- Aftercare of horse, equipment and environment.

Learning aim C: Undertake ground schooling of horses to support equine performance and welfare

C1 Assessment of horse

- Assessing individual horses needs to identify weaknesses and improve strengths to support performance and welfare.
- Prior history, to include age, level of training, level of fitness, injuries, known issues.
- Assessment of horse in-hand, to include go, stop, turn left, turn right, reinback, yield hind quarters.
- Assessment of horse on the lunge, to include walk and trot, debatable use of canter in assessment, relaxation, rhythm, suppleness, balance through transitions, weak rein, e.g. left or right.

C2 Ground schooling

Higher level ground schooling techniques that will improve horses' obedience to the aids and way of going.

- Identifying training goals, e.g. reinback, obedience to voice aids, lengthening of topline.
- Working-in hand techniques, to include using poles to control the horses' legs through mazes; basic schooling in-hand, including go and reinback, Parelli seven games, positive reinforcement through clicker training, lungeing over poles, long reining, using two lunge reins on the lunge circle.
- Training single learned responses, timing of removal of pressure, principles of negative and positive reinforcement, consistent predictable aids, training without positive punishment.
- Establishing light cues, avoiding conflict behaviours, e.g. training individual aids separately.
- Rate of progression, improving responses to aids.
- Self-carriage, to include definition, British Dressage scales of training, The International Society of Equitation Science (ISES) First Principles of Horse Training.

C3 Reflective practice

Use of experiential learning cycles and reflective journals to review own practice and monitor own performance.

- Experiential learning cycles and reflective journal accounts, e.g. Kolb, to include:
 - record of activities performed, appropriate exercises and equipment used, considering health, welfare and performance
 - evaluation of horse's progress made, problems encountered
 - evaluation of own performance
 - conclusion linking horse performance to own performance
 - suggestions for improvement in own performance, planning for future training sessions.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand techniques for working horses from the ground to maintain their health and fitness		
<p>A.P1 Explain reasons for lungeing, long reining and working-in hand.</p> <p>A.P2 Explain health and safety considerations when working with horses on the ground.</p>	<p>A.M1 Analyse appropriate tack and equipment for safely working horses from the ground.</p>	
Learning aim B: Carry out safe lungeing procedures to maintain equine health and fitness		
<p>B.P3 Demonstrate the correct selection and fitting of horse tack and equipment for lungeing.</p> <p>B.P4 Demonstrate safe and effective techniques when lungeing well-schooled horses.</p>	<p>B.M2 Perform correct selection and fitting of horse tack and equipment for lungeing in a time efficient manner to industry standard.</p> <p>B.M3 Perform lungeing of well-schooled horses to industry standard.</p>	
Learning aim C: Undertake ground schooling of horses to support equine performance and welfare		
<p>C.P5 Perform ground schooling exercises safely to improve one horse's performance based on own assessment of training needs.</p> <p>C.P6 Record the progression of one horse's training.</p>	<p>C.M4 Perform ground schooling exercises competently and confidently that clearly improve the identified training needs of one horse.</p> <p>C.M5 Assess the effectiveness of ground schooling exercises performed.</p>	
		<p>A.D1 Evaluate the use of training aids when working horses from the ground for fitness and exercise purposes.</p> <p>B.D2 Demonstrate industry standard preparation, lungeing and aftercare of horses with different levels of training.</p> <p>C.D3 Evaluate the effectiveness of ground schooling exercises selected and performed to support the performance and welfare of one horse.</p>

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aims: A and B (A.P1, A.P2, B.P3, B.P4, A.M1, B.M2, B.M3, A.D1, B.D2)

Learning aim: C (C.P5, C.P6, C.M4, C.M5, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- an equine establishment
- a variety of horses that can be exercised from the ground
- safe, enclosed arenas with non-slip surface
- equipment for the handler (BSI standard hat, clothes, body protector)
- horse tack and equipment for working horses from the ground, e.g. lungeing equipment
- training aids (side reins, Pessoa, chambon, de Gogue, bungee)
- an experienced instructor qualified to British Horse Society Assistant Instructor (BHS AI) or equivalent
- guest speakers on contemporary methods of training, e.g. Parelli, clicker training.

Essential information for assessment decisions

Learning aims A and B

For distinction standard, learners must consider the advantages and disadvantages of using training aids when working horses from the ground. The training aids discussed should cover the unit content. Learners must show that they understand their correct use and appropriate application. Detailed examination of the welfare implications of using training aids must be evidenced along with suitable alternative actions.

Learners will work with more challenging horses. These horses might have difficult temperaments, be lively ex-competition horses, or have little experience of lungeing. Learners must demonstrate calm and effective handling of the horses throughout the preparation, lunge work and aftercare.

For merit standard, learners must examine in detail suitable horse tack and equipment for the three ground work techniques. Learners must take into consideration different physiological states such as age, health and behaviour. They must show that they understand influencing factors when selecting appropriate horse tack and equipment in preparation for exercising horses from the ground.

Learners must show a higher level of competence while handling equipment and the horse. They will select and fit lungeing equipment quickly and efficiently. Learners will lunge independently, using appropriate exercises to maintain the horse's level of schooling and show an understanding of rhythm and balance. Learners will perform aftercare of the horse, equipment and environment efficiently and effectively.

For pass standard, learners will present labelled illustrations or case studies of lungeing, long reining and working-in hand. They must give clear and concise reasons for working the horses in each of the required techniques. Learners will specify the equipment used and give their opinions on the benefits and drawbacks of the horse tack and equipment discussed. They will detail health and safety concerns of working horses from the ground. Learners must discuss the tack, equipment and clothing required to minimise risk to both the horse and the rider.

Learners must correctly tack up three different horses for lungeing. Independently, they must select suitable horse tack and equipment to properly fit the horses. Learners must evidence their ability to safely and correctly exercise three calm, obedient, well-schooled horses on the lunge for a full 20 minutes each. Following practical activities, learners must perform correct aftercare of the horse, the equipment and the lungeing environment. Evidence can be in the form of photographs, video, observation reports or witness statements. Evidence from work experience can be used if signed by a qualified instructor.

Learning aim C

For distinction standard, learners must evidence in their training journal a review of the horse's progress, including detailed reasoning of the problems encountered. They will critique the strengths and weaknesses of their own performance and examine the significance of the link between their horse's performance and their own. Learners must plan for future training sessions by suggesting alternative actions.

For merit standard, learners will demonstrate a higher level of skill while handling their chosen horse. Commands will be given consistently and with good timing. Evidence will be clear through the progression rate of the horse. In their training journal, learners will have considered the health and welfare of the horse throughout the activities performed, examining in detail their selected exercises and all the equipment used. At each stage of the learning cycle, learners will carefully consider a variety of factors that might impact on either their own or their horse's performance.

For pass standard, learners must choose a horse to use as a case study. Learners must assess the horse on the ground to highlight its training and physiological strengths and weaknesses. Learners must pinpoint training aims to work on and decide which approach would best support the horse's future performance and welfare, for example in-hand schooling, Parelli seven games, clicker training, lungeing over poles. Learners must create a training plan over a suitable period of time, for example six weeks, for their selected horse. Learners will safely undertake a logical, systematic approach to improve their chosen horse's performance. They will record their horse's progress in a training journal, which should be presented in the style of an experiential learning cycle supported by photographs and descriptive diary entries.

Links to other units

This unit links to:

- Unit 5: Horse Tack, Equipment, and Rugs
- Unit 12: Schooling Horses on the Flat
- Unit 14: Theory of Training Horses
- Unit 16: Ground Poles and Gridwork for Horses.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- observation during work experience
- support from local equine business staff as mentors.

Unit 20: Introduction to Equestrian Coaching

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners study the principles of equestrian coaching and how these can be applied in practice.

Unit introduction

As participation in equestrian sports continues to grow, so does the need for coaches who can inspire riders to improve progressively through the use of sound, safe principles of equitation and stable management.

In this unit, you will develop the skills needed to coach volunteer participants in the development of equestrian skills by studying the role of the coach, the processes involved in planning for effective learning, and by coaching and supporting volunteer participants with a range of learning needs. You will develop your coaching ability by conducting riding lessons on the flat, delivering short stable-management lessons and consistently using experiential learning cycles to reflect on your own performance.

This unit will help you progress to further study in the sector, or vocational training as an apprentice specialising in equestrian coaching.

Learning aims

In this unit you will:

- A** Explore the process of planning equitation and stable-management lessons
- B** Undertake equestrian coaching activities safely to improve participant performance
- C** Reflect on equestrian coaching activities to develop coaching practice.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Explore the process of planning equitation and stable-management lessons	A1 Experiential learning theory A2 The role of the coach A3 Planning for learning	Schemes of work, lesson plans and a written report investigating safe and effective coaching processes.
B Undertake equestrian coaching activities safely to improve participant performance	B1 Introduction and warm up B2 Supporting participants B3 Concluding coaching activities	A reflective diary that includes evidence of practical sessions from witness statements/ observation records, evaluation of performance using experiential learning cycles, reflection on feedback from others and identification of further training.
C Reflect on equestrian coaching activities to develop coaching practice	C1 Using feedback C2 Developing coaching practice	

Content

Learning aim A: Explore the process of planning equitation and stable-management lessons

A1 Experiential learning theory

Encouraging reflective learning through the use of educational frameworks.

- Kolb's experiential learning cycle, using templates to deepen reflection, to include:
 - concrete experience – how to record coaching experiences
 - reflective observation – why it's important to record activities and compare what happened to what was planned
 - abstract conceptualisation – learning from the coaching experience, adjusting plans, planning further activities
 - active experimentation – trying out what has been learned.
- Schön reflection-in-action and on-action.

A2 The role of the coach

Understanding the roles and responsibilities of the equestrian coach when representing an organisation and in guiding learning.

- Professional conduct, to include:
 - presentation, including dress code, attitude and behaviour
 - communication skills, teamwork, e.g. with other coaches, the riders and their families
 - positive behaviour when coaching
 - creating the right conditions for learning
 - the coach as instructor, to include trainer, assessor, motivator, organiser.
- Correct use of technical terms, clear explanations, understanding of school rules and regulations.
- Setting achievable goals and working on training programmes.
- Agreeing priorities between coach and volunteer participants, with a focus on training plans, maintaining motivation, giving feedback and monitoring progress:
 - performance training cycles, including macro, meso, micro
 - SMARTER (specific, measurable, achievable, realistic, time bound, evaluate, re-evaluate) targets
- Understanding of learning styles, e.g. Honey and Mumford typology of learners.
- VAK (visual, auditory, kinaesthetic) model.
- VARK (visual, aural, read/write, kinaesthetic) model.

A3 Planning for learning

Structuring lessons and the importance of planning in order to minimise the risk of accidents occurring and to maximise learning.

- Importance of planning, time keeping.
- Scheme of work, working document, meso cycle.
- Lesson plans.
- Micro cycles.
- Using pre-approved lesson plan forms, including:
 - date, name of coach, location, number of volunteer participants, type of lesson, lesson aims, resources, safety checks carried out, planned warm-up, main content of lesson, planned cool down, feedback from participants and teacher, self-reflection.
- Risk assessment.
- Information required from the volunteer participants in order to plan activities, to include height, weight, medical history, experience, confidence levels, concerns.
- Confidentiality of information.
- Cleanliness and tidiness, hazard-free environment.

- Checking facilities, to include:
 - horse suitability, condition of saddlery and equipment
 - arena surface or ground conditions, influence of the weather, e.g. storms, high winds or snow sliding off roof of indoor school
 - setting up, condition of equipment, to include safety of construction, use of safety cups where necessary, selection of ground poles, planks or arena dividers, hazards on equipment, safe-lifting procedure
 - referring and reporting issues, e.g. serious hazards, issues beyond role or experience.
- Accident procedure, to include what to do in the event of a fall or a kick, reporting to senior staff.
- Importance of first-aid qualification.
- Safeguarding children and vulnerable adults, duty of care, HM Government guidelines for 'Working together to safeguard children'.

Learning aim B: Undertake equestrian coaching activities safely to improve participant performance

B1 Introduction and warm up

Coaching planned sessions.

- Lesson introduction, to include introducing self, aim of the lesson, tack, equipment and participant dress check, short discussion with each participant, learn participant names, answering questions.
- Flatwork lesson:
 - warm-up and assessment of participants, appropriate lesson aim, consideration of participants' fitness and confidence levels, control of the ride, correct terminology and instructions, assessment of participants' riding positions at appropriate pace, health and safety, clear communication
 - recall ride for discussion and feedback, re-order ride as necessary.
- Stable-management lessons:
 - establishing participants' current level of knowledge
 - demonstrating task, health and safety, personal protective equipment (PPE), handling of equipment and/or horses.

B2 Supporting participants

Coaching participants to ride horses on the flat and carry out stable management.

- Motivating participants.
- Addressing the needs of all participants, individual attention, checks on learning.
- Flatwork lesson main content, to include:
 - appropriate exercises and school movements, consideration of participants' fitness and confidence levels, control of the ride, correct terminology and instructions
 - progressive lesson towards aim, observant coaching, positional corrections made, provide information to help participants improve, reflection-in-action, when to refer to senior staff.
- Stable-management lesson, to include:
 - progressive lesson towards aim, observant coaching, corrections made to participants, meeting needs of each individual participant.
- Participant behaviour management.

B3 Concluding coaching activities

Using time allowed in a productive way so that the end of the lesson is a valid and integral part of the coaching session.

- Time keeping, allowing time to finish.
- Cool down, purpose of cool down for horse and rider, suitable exercises, maintaining engagement.
- The importance of feedback to the participants, encouraging participants to give feedback on themselves.
- Feedback from the participants on the coaching style, feedback from the staff supervising.
- Putting away equipment and tidying up facility.

Learning aim C: Reflect on equestrian coaching activities to develop coaching practice**C1 Using feedback**

The importance of training the coach to become a reflective practitioner.

- Monitoring practice through use of a reflective journal.
- Importance, and methods, of obtaining feedback.
- Constructive use of feedback from participants and supervising teacher.
- Using experiential learning frameworks.

C2 Developing coaching practice

- Accessing further training and researching specific areas of interest and need.
- SWOT (strengths, weaknesses, opportunities and threats) analysis.
- Definition of further training, to include skills and competence, certified qualifications.
- Definition of development, to include informal, transferable skills, e.g. leadership, people management or organisational skills.
- The importance of continuing professional development (CPD), to include preventing burn out, motivation, engagement.
- Options for further training and education in coaching, routes towards qualifications, e.g. UK Coaching Certificate (UKCC), British Horse Society (BHS), Association of British Riding Schools (ABRS).
- Identifying personal training needs.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Explore the process of planning equitation and stable-management lessons		
<p>A.P1 Explain the roles and responsibilities of the equestrian coach.</p> <p>A.P2 Produce schemes of work and lesson plans to cover specified coaching activities.</p>	<p>A.M1 Analyse own approaches to planning, with reference to the role of the coach and learning theory.</p>	<p>A.D1 Evaluate how the needs of the participants affect own approaches to planning.</p>
Learning aim B: Undertake equestrian coaching activities safely to improve participant performance		
<p>B.P3 Perform safe coaching of participants riding horses on the flat.</p> <p>B.P4 Perform safe coaching of participants undertaking stable-management tasks.</p>	<p>B.M2 Perform safe coaching activities in a well-structured and time-efficient manner.</p>	<p>B.D2 Demonstrate excellent communication and organisational skills while safely performing coaching activities.</p>
Learning aim C: Reflect on equestrian coaching activities to develop coaching practice		
<p>C.P5 Explain effectiveness of own coaching sessions in meeting planned aims.</p> <p>C.P6 Explain approaches for enabling improvements to coaching sessions.</p>	<p>C.M3 Analyse own coaching activities to adapt plans for future sessions.</p>	<p>C.D3 Evaluate coaching performance to identify further training needs.</p>

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aims: B and C (B.P3, B.P4, C.P5, C.P6, B.M2, C.M3, B.D2, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- risk assessments, schemes of work and lesson plan templates
- volunteer participants (to be coached) for riding lessons and stable-management tasks
- PPE, including BSI-standard hat, boots, gloves
- calm, well-mannered horses for riding lessons and stable-management tasks
- enclosed arena, trotting poles, dressage markers
- stable yard, tack and equipment in good condition and suitable for basic stable-management tasks, e.g. tacking up, grooming, mucking out
- BHS Assistant Instructor (BHS AI) or equivalently qualified coach, preferably with UKCC Level 2 or above.

Essential information for assessment decisions

Learning aim A

For distinction standard, learners must study comprehensively and articulate clearly the impact and relevance of the information gathered from volunteer participants. Learners will consider how knowing the height, weight, medical history, experience, confidence levels and concerns of the people they will be coaching can affect their planning. Learners must examine in detail the relevance of learning styles and preferences of the volunteer participants in their planning for both flatwork and stable-management lessons.

For merit standard, learners must consider carefully how the information gathered helped them to understand the volunteer participants' expectations of their coach, for example dress, behaviour, giving clear explanations. Learners will consider how setting SMARTER targets in schemes of work and lesson plans can assist both the coach and the volunteer participants to achieve goals. Learners will understand the importance of reflective practice and the significance of reflective learning through the use of educational frameworks, providing for this in their lesson plans.

For pass standard, learners must examine in detail all aspects of the unit content for the role of the coach. They will show that they understand the roles and responsibilities of the equestrian coach when representing an organisation and in guiding learning. Learners must investigate the importance of professional conduct while carrying out coaching activities and in general life, and should think about what it means to be a role model.

Using SMART targets, learners must produce one scheme of work and four lesson plans for flatwork lessons and one scheme of work and four lesson plans for stable-management tasks. The teacher will give learners briefs/aims for all the lesson plans to ensure the planning task is the same for all learners. In order to set achievable goals, learners must gather essential information from the volunteer participants (who they will be coaching). Groups should be made up of three or four volunteer participants. Learners should coach a group of riders for 30 minutes on the flat and coach stable-management tasks for 20 minutes. Learners will carry out risk assessments of all coaching activities and may use pre-prepared schemes of work and lesson plan templates.

Learning aims B and C

For distinction standard, learners must confidently and clearly use correct technical language in two-way communication with their volunteer participants during all coaching activities. Learners will be efficient in their delivery of coaching activities and will have excellent organisation skills; coaching activities will run smoothly and professionally. Learners will reflect-in-action in order to adapt their practice to suit the changing needs of the participants during the sessions, for example due to safety concerns or horse availability. Learners will show a level of competence that would be similar to a junior member of staff in a riding school.

Learners must carefully consider their own coaching performance in order to recognise their strengths and weaknesses. Learners will comprehensively investigate the steps required to achieve certification from a governing body that suits their skillset and needs, for example Association of British Riding Schools (ABRS), British Horse Society (BHS) or UK Coaching Certificate (UKCC) pathways.

For merit standard, learners must show they are able to deliver well-structured lessons that adhere to the scheduled timings set out on their lesson plans. Learners will split their lesson delivery into introduction/warm-up, main content and summary/cool down. Learners will have good control over their group of volunteer participants and the horses in the flatwork lessons and show structure and organisational skills during the stable-management tasks. Learners will motivate and support the volunteer participants throughout the coaching activities, using frequent learning checks.

Learners must complete the self-evaluation section on their lesson plans in depth. Learners will show they have used a framework to assist their analysis, for example concrete experience, reflective observation and abstract conceptualisation, subsequently linking active experimentation into their next lesson plan and future sessions.

For pass standard, learners must use the schemes of work and lesson plans from A.P2 to carry out safe coaching activities. Learners will coach a group of three or four volunteer participants for four flatwork sessions and four stable-management tasks and will be given sufficient time to practice the briefs before the assessment. Learners must update the lesson plan essential information if the individual volunteer participants change.

Using experiential learning cycle frameworks, learners must reflect on their performance following each coaching session and consider how well their coaching session met the planned lesson aims. Learners will produce a reflective diary in order to cover the evaluation of the coaching performance in sufficient depth. Learners will examine in detail methods of obtaining constructive feedback in order to improve their coaching practice, including feedback from volunteer participants and the teacher, and taking specified exams/tests. Using a SWOT analysis, learners will identify where they need support to improve towards a professional coaching performance.

Links to other units

This unit links to:

- Unit 2: Equine Diet and Nutrition
- Unit 5: Horse Tack, Equipment and Rugs
- Unit 6: Equine Health and Husbandry
- Unit 7: Preparation and Presentation for Competitions
- Unit 12: Schooling Horses on the Flat
- Unit 14: Theory of Training Horses
- Unit 15: Riding Horses in the Open
- Unit 16: Ground Poles and Gridwork for Horses.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- observation during work experience
- support from local equine business staff as mentors.

Unit 21: Equine Stud Management

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners study the principles and practices of planning and managing breeding programmes in a stud environment.

Unit introduction

At high levels of equine competition there is a great demand for increasing the quality genetic makeup of the performance horse. Any horse owner wishing to breed from their mare is going to be concerned that the foals produced are healthy and fit. The role of the equine stud is important in managing the breeding of horses to minimise inheritance of genetic disease and physiological and psychological defects, while increasing desirable characteristics in the foals produced.

In this unit, you will learn about the routine activities in the equine stud, as well as the practical skills involved in essential activities such as teasing, covering and weaning. You will explore the planning, monitoring and record keeping involved in breeding programmes, including the healthcare of stallions, brood mares and foals before, during and after the foaling process.

Completing this unit will help you progress to work in a role such as stable hand at an equine stud. The unit will also help you progress to higher education courses, for example in equine science.

Learning aims

In this unit you will:

- A** Understand planning and management of processes in effective breeding programmes
- B** Examine the procedures for foaling and aftercare of the mare and foal to promote equine health and welfare
- C** Carry out routine activities in an equine stud to ensure the safety and welfare of equines and staff.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Understand planning and management of processes in effective breeding programmes	A1 Breeding programmes A2 Selection of breeding stock A3 Breeding methods	A case study report on planning and management of breeding programmes.
B Examine the procedures for foaling and aftercare of the mare and foal to promote equine health and welfare	B1 Foaling B2 Aftercare of mare and foal	A report on preparation for, and the process of, foaling and aftercare of mares and foals.
C Carry out routine activities in an equine stud to ensure the safety and welfare of equines and staff	C1 Health and safety C2 Routine activities in an equine stud C3 Monitoring and recording of activities	Practical portfolio of evidence, including witness statements and teacher observations of learners carrying out routine stud activities. Reflective reports on routine activities in the equine stud.

Content

Learning aim A: Understand planning and management of processes in effective breeding programmes

A1 Breeding programmes

The purpose, development and monitoring of breeding programmes.

- Purposes of breeding programmes, to include avoidance of indiscriminate breeding, increasing the likelihood of desirable characteristics such as performance, avoidance of heritable disease.
- Use of breeding and genetic data in pedigrees and bloodlines, e.g. adherence to stud books for sport horses and racing.
- Planning logistics of breeding programmes, to include timescales of individual programmes, resources required, communication between owners and stud.
- Monitoring and record keeping in breeding programmes, to include health status, breed data and service records.
- Assessment of progeny to evaluate the success of breeding programmes.

A2 Selection of breeding stock

The suitability of brood mares and stallions for use in breeding programmes.

- Selection of potential horses with suitable characteristics, to include consideration of previous achievements, pedigree, conformation, fertility.
- Disease status, to include:
 - infectious diseases, e.g. equine influenza, strangles
 - sexually transmitted infections (STIs), e.g. equine viral arteritis (ETI), equine herpes virus (EHV), contagious equine metritis (CEM).
- Assessment of the suitability of the physical and mental condition of the brood mare and stallion before stud work, e.g. size, health and temperament.

A3 Breeding methods

Advantages, disadvantages, processes and effects of methods to diagnose pregnancy and increase the likelihood of successful offspring production, to include:

- manipulation of oestrus, to include artificial day length and use of hormones
- live covering, e.g. signs of heat, use of teasing
- application of reproductive technology, to include artificial insemination (AI), embryo transfer (ET) and pregnancy diagnosis (PD).

Learning aim B: Examine the procedures for foaling and aftercare of the mare and foal to promote equine health and welfare

B1 Foaling

Planning processes, equipment and actions required to promote the health and welfare of mare and foal before and during foaling, to include:

- preparation:
 - strategy for normal foaling, e.g. sitting-up duties, recognising signs of foaling
 - equipment and resources, e.g. foaling alarms, CCTV, foaling and first-aid kits
 - actions required for foaling to proceed smoothly, e.g. preparation of stable, removal of fillet strings/leg straps from rugs immediately before foaling
 - anticipating the need to request additional help if problems occur during foaling, e.g. communication methods, contact numbers of veterinary surgeons

- the foaling process:
 - foaling stages, to include recognition of the behavioural and physical signs that foaling is imminent, breaking of waters, normal presentation and delivery of foal, delivery of placenta
 - signs of difficult or abnormal foaling, e.g. incorrect foal presentation, lengthy delivery, premature detachment of placenta.

B2 Aftercare of mare and foal

Purposes of and procedures in normal aftercare, recognising the signs, potential consequences and actions required to address foaling-related problems in order to promote health and welfare.

- Foal:
 - aftercare, to include removal of the amniotic sac, ensuring colostrum intake, navel care and care of orphans
 - monitoring and observation, e.g. passing of meconium, stability of respiratory and heart rates in first few hours; physical abnormalities
 - diseases and disorders, to include septicaemia and joint ill, haemolytic disease, neonatal maladjustment syndrome, entropion, meconium impaction and scours.
- Mare:
 - aftercare, to include provision of good quality hay and water, checks for trauma, retention of placenta and Caslick's procedure.
- Observation and interpretation of attachment behaviour between mare and foal.

Learning aim C: Carry out routine activities in an equine stud to ensure the safety and welfare of equines and staff

C1 Health and safety

Reasons for and processes involved in managing the health and safety of handlers and horses.

- Interpreting and applying risk assessments for practical activities, to include safety of work area.
- Using correct personal protective equipment (PPE), e.g. gloves, hats.
- Hygiene procedures, e.g. hand washing, the need for sterilising some equipment.
- Equipment and techniques for handling and restraining mares and stallions.

C2 Routine activities in an equine stud

- Purposes, procedures and equipment involved in:
 - swabbing, teasing, covering (natural and in-hand), pregnancy diagnosis, foaling and weaning.
- Correct handling techniques for brood mares, stallions, foals, mares with foals at foot, e.g. body language and positioning, appropriate equipment early handling of foals.

C3 Monitoring and recording of activities

Reasons and methods for monitoring and recording activities:

- stud activity records, to include teasing, covering, swabbing, pregnancy diagnosis, foaling, weaning and veterinary intervention
- veterinary, care and official records, to include tooth and foot care, vaccinations, worming and passports
- other records, e.g. client details, records of feed, water and exercise for mares and stallions, day book.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand planning and management of processes in effective breeding programmes		A.D1 Evaluate the planning and management of effective breeding programmes.
A.P1 Explain how processes are planned and managed in effective breeding programmes. A.P2 Explain breeding programmes in terms of stock selection and suitability of breeding methods.	A.M1 Analyse the planning and management of processes for effective breeding programmes.	
Learning aim B: Examine the procedures for foaling and aftercare of the mare and foal to promote equine health and welfare		B.D2 Justify the processes used in foaling and the aftercare of mares and foals to promote equine health and welfare.
B.P3 Explain the preparation required for foaling a mare. B.P4 Explain the care provided to a mare and foal during and following foaling to promote equine health and welfare.	B.M2 Analyse how preparation for and management during and after foaling affects the health and welfare of the mare and foal.	
Learning aim C: Carry out routine activities in an equine stud to ensure the safety and welfare of equines and staff		C.D3 Justify the selection and use of equipment and methods required to carry out routine stud activities in the successful running of an equine stud.
C.P5 Perform, safely and correctly, procedures required to carry out routine stud activities. C.P6 Explain routine activities that take place in an equine stud.	C.M3 Manage efficient application of skills needed to carry out routine stud activities. C.M4 Assess the contribution of routine activities to the success of running an equine stud.	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of three summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aim: B (B.P3, B.P4, B.M2, B.D2)

Learning aim: C (C.P5, C.P6, C.M3, C.M4, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- breeding stock, including stallions, brood mares and foals
- handling and restraint equipment
- foaling alarms and equipment
- artificial vagina, teasing and covering equipment
- physical resources such as covering barns, stables with foaling boxes, mare and foal and stallion paddocks.

Essential information for assessment decisions

Learning aim A

Learners will consider a breeding management programme case study.

For distinction standard, learners will demonstrate a thorough understanding of the logistical and physical processes involved in planning and managing an effective breeding programme. They will consider the implications of the decisions made for each aspect of the breeding programme in the case study, including the selection of breeding stock and choice of breeding methods.

Learners must examine ways in which the success of a breeding programme can be judged and how each component is managed in order to achieve desirable health and welfare outcomes, and production of foals with the required characteristics. Written work will be clearly structured and coherently written.

For merit standard, learners must investigate decisions made in the breeding programme, considering how each part is both planned and physically managed. They will consider how the context of the breeding programme makes different demands on the planning process, impacting on the management of each stage and on each individual horse. Written work will be logically ordered.

For pass standard, learners must provide detail for the planning and management of effective breeding programmes, with reference to meeting client requirements, timescales, record-keeping, and resources required.

They will recognise the characteristics that make stock suitable or unsuitable for breeding in relation to the purposes of the breeding programme and the health and welfare of both breeding stock and potential offspring. Learners will examine the ways in which breeding methods and technologies have been applied within the breeding programme in the case study.

Learning aim B

For distinction standard, learners will consider the implications of the preparations and processes involved in each aspect of foaling, and the aftercare of mares and foals. They will clearly articulate a rationale for the application of these processes in the promotion of good equine health and welfare. Learners will consider a variety of scenarios that could occur during and after abnormal foaling and provide detailed strategies needed to address them.

For merit standard, learners will detail each stage of the foaling process, giving an informed account of the impact that preparation and management has on the health and welfare of the mare and foal before, during and after foaling. This will include a consideration of the signs of abnormal foaling as well as the prognosis, treatment and management of potential health problems in the new born foal.

For pass standard, learners will provide details of the equipment, physical and human resources that must be organised before foaling a mare, linking these preparations to their purpose in foaling. They will provide reasons for the essential observations and steps taken to promote the physical health and welfare of the mare and foal during and immediately after foaling. They will discuss the expectations as foaling progresses in a normal birth and the actions required when dealing with an abnormal birth.

Learning aim C

For distinction standard, learners must demonstrate safe and effective use of equipment and techniques to handle mares and stallions. They will complete routine activities efficiently and confidently, with a skill that reflects a deep understanding of the positive and negative potential consequences of the way they work. This will also be shown through consideration of equipment and methods. Learners' reflective pieces will be clearly structured and written coherently, addressing all considerations specified in the assignment brief in a detailed manner. Their justifications for equipment and methods used will demonstrate an awareness of not only their use in the activity they have carried out or observed but of the different equipment methods that may be available for carrying out the same task.

For merit standard, learners will carry out routine tasks with efficiency, managing their tasks in order to make the most of the time and resources available. They will recognise the part that their actions play in the success of the stud activities and behave accordingly, allowing others to work efficiently by taking care to ensure that equipment and resources are ready for the next task when they have completed their own work. Learners will make links between the routine activities that are carried out in an equine stud to the overall purpose of the stud and the breeding programmes it administers. They will identify what success means in the running of an equine stud, in terms of progeny produced, health and welfare of animals, and profitability as appropriate.

For pass standard, learners must address the routine activities that take place in an equine stud, which may be those they have carried out or observed taking place. Their explanation will include the purpose, timing and frequency of each activity, and give examples of where and how related records must be made and kept. Learners must include the planning, monitoring and recording of the routine care of a named horse, which would take place over the course of a minimum of three months. Learners will demonstrate the correct use of PPE at all times and behave in an appropriate manner to ensure their safety and that of others. They will use appropriate handling techniques to minimise stress to the horses they handle, following instructions to complete routine tasks safely and correctly, under supervision.

Links to other units

This unit links to:

- Unit 1: Equine Structure, Form and Function
- Unit 3: Managing Equine Disease
- Unit 6: Equine Health and Husbandry.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- opportunities for observation of during work experience
- support from local equine business staff as mentors.

Unit 22: Managing Equine Injuries and Rehabilitation

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners study the causes of common injuries and conditions, and the principles and application of equine rehabilitation and therapy.

Unit introduction

As competitive disciplines for equines grow in popularity, the demands we make on their performance are increasing. It is inevitable that these demands have an associated risk of equine injury, and so there is a need to understand and select the most appropriate therapies for individual equines, in order to return them to health in the most effective way.

In this unit, you will learn how to recognise the most common sites and causes of injuries that contribute to poor performance. You will study how injuries and conditions are recognised and investigate a range of rehabilitation techniques used to improve performance. You will explore the regulations of the rehabilitation industry and the evidence for the effectiveness of different therapies.

This unit will help you progress to a range of higher education courses such as equine sports science, equitation science, and equine (sports) therapy and rehabilitation. It will also give you valuable skills for employment in roles such as an assistant groom, responsible for working with horses undergoing rehabilitation.

Learning aims

In this unit you will:

- A** Examine causes and types of injuries and conditions that affect equine performance
- B** Investigate the role of the rehabilitation industry in treating injuries and conditions that affect equine performance
- C** Undertake the planning of rehabilitation programmes to support equine health and welfare.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Examine causes and types of injuries and conditions that affect equine performance	A1 Common injuries and conditions A2 Recognising and diagnosing injuries and conditions	A report on the causes, recognition and treatment of equine injury.
B Investigate the role of the rehabilitation industry in treating injuries and conditions that affect equine performance	B1 The rehabilitation industry B2 Regulation of equine therapies	
C Undertake the planning of rehabilitation programmes to support equine health and welfare	C1 Factors affecting rehabilitation programmes C2 Realistic rehabilitation programmes	Plans for managing the rehabilitation of two equines from given case studies.

Content

Learning aim A: Examine causes and types of injuries and conditions that affect equine performance

A1 Common injuries and conditions

Injuries and conditions suffered by equines, factors that increase the likelihood of injury, and the impact of injuries and conditions on performance and recovery processes.

- Acute injuries, to include sprains, strains, tendon damage, fractures, dislocations, wounds.
- Responses to injury, to include inflammation, concussion.
- Pre-existing factors, e.g. poor conformation, underlying conditions.
- Failure to adequately prepare for work demands, e.g. lack of fitness, lack of training, fluid and electrolyte levels.
- Common injuries and conditions related to disciplines, e.g. repetitive stress in dressage, strain of the superficial digital flexor tendon in eventing, direct trauma in racing.
- Effect of farriery on hoof shape and balance, to include hoof angle and heel support.
- Effect of poor riding position, worn or ill-fitting tack.
- Recovery process, to include basic healing processes in different tissues and problems encountered when return to work is too sudden.

A2 Recognising and diagnosing injuries and conditions

Procedures, purposes, suitability, practitioner involvement, advantages and disadvantages of methods used in recognition and diagnosis of injuries and conditions.

- Importance of diagnosis being carried out only by veterinary professionals.
- Veterinary investigation, diagnosis and referral procedures, to include:
 - medical imaging technology such as radiography, ultrasound, thermography, nuclear scintigraphy, endoscopy
 - monitoring devices such as electrocardiography (ECG)
 - sample analysis such as biopsies, blood, bronchiolar lavage and urinalysis.
- Visual and hands-on observations, e.g. swelling, heat, trauma.
- Observations of rider positioning and tack quality/fit.
- Lameness analysis methods, to include trotting up, flexion tests, lunging, loose schooling.
- Conformation, gait and posture analysis, e.g. footfall, joint angles.
- Consideration of previous individual history, to include work type and records.
- Importance of observing conditions and situations, e.g. masking symptoms in new situations, settling in new horses may affect behaviour.
- Palpation of major 'landmarks', e.g. vertebrae, major muscle groups, limb anatomy.

Learning aim B: Investigate the role of the rehabilitation industry in treating injuries and conditions that affect equine performance

B1 The rehabilitation industry

Availability and suitability of rehabilitation therapies for different injury/condition types. The main points in the treatment process (application, length and frequency), advantages and disadvantages of treatment and an assessment of the available evidence for effectiveness of therapies.

- Farriery, e.g. hoof balancing, fitting of conventional and surgical shoes.
- Physiotherapy, e.g. massage and manipulation, osteopathy, chiropractic.
- Equine dentistry, e.g. filing teeth.
- Dietary management, e.g. ensuring balanced diet tailored to work and health status.
- Exercise programmes, to include in-hand, lunging, riding, use of treadmills.
- Thermotherapy.
- Hydrotherapy.
- Complementary therapies, e.g. acupuncture, aromatherapy, homeopathy.

- Evidence for effectiveness of each therapy, to include clinical studies, case studies, how effectiveness may be measured in a valid way.

B2 Regulation of equine therapies

Regulation and legislation of equine therapies.

- Regulated professions and protected terms, e.g. veterinary surgeon, farrier.
- Therapists working under the direction of veterinary surgeons.
- Definitions and restrictions on veterinary surgery and complementary therapy in the Veterinary Surgeons Act 1966.
- Registration with governing bodies, e.g. Royal College of Veterinary Surgeons (RCVS), Farriers Registration Council (FRC), Association of Chartered Physiotherapists in Animal Therapy (ACPAT).
- Medication administration, e.g. pain relief, anti-inflammatories.

Learning aim C: Undertake the planning of rehabilitation programmes to support equine health and welfare

C1 Factors affecting rehabilitation programmes

Parameters that must be considered in terms of allowing successful rehabilitation programmes to be planned.

- General welfare, costs, loss of use, time out of training.
- Veterinary involvement and referral to other practitioners, to include sourcing and costing trusted therapists, existence and coverage levels of insurance policies, quality of service, efficacy.
- Potential for partial failure of rehabilitation programme, e.g. consideration of change of use, retirement or euthanasia.

C2 Realistic rehabilitation programmes

Processes and factors considered for planning and management of realistic equine rehabilitation programmes.

- Veterinary advice and direction.
- Monitoring and recording processes for recovery and the potential difficulty involved in measuring recovery accurately, e.g. degree of lameness, increased performance, state of injury.
- Accessibility of rehabilitation requirements, e.g. use of polework to improve core strength, accessing facilities that are not local, use of equipment such as ice boots.
- Timescales of rehabilitation as related to type of injury or condition, e.g. box rest, increasing frequency, type and length of exercise.
- Potential for failure to return to previous performance levels.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Examine causes and types of injuries and conditions that affect equine performance		
<p>A.P1 Explain common causes of injuries and conditions.</p> <p>A.P2 Explain methods used for identifying injuries that affect equine performance.</p>	<p>A.M1 Analyse factors affecting the occurrence and recognition of injuries and conditions that affect equine performance.</p>	<p>A.D1 Evaluate the factors affecting the occurrence and recognition of injuries and conditions that affect equine performance.</p>
Learning aim B: Investigate the role of the rehabilitation industry in treating injuries and conditions that affect equine performance		<p>B.D2 Evaluate the evidence for effectiveness of therapies used to treat injuries and conditions that affect equine performance and the impact of this on regulation of equine therapies.</p>
<p>B.P3 Explain how therapeutic methods are used to assist recovery from injuries and conditions that affect equine performance.</p> <p>B.P4 Explain the importance of the regulation of equine therapies.</p>	<p>B.M2 Analyse the role of equine therapeutic methods in the treatment of performance-related injuries.</p>	
Learning aim C: Undertake the planning of rehabilitation programmes to support equine health and welfare		
<p>C.P5 Plan simple rehabilitation programmes to support equine health and welfare.</p> <p>C.P6 Explain planning decisions for rehabilitation programmes in equine recovery.</p>	<p>C.M3 Plan complex rehabilitation programmes to support equine health and welfare.</p> <p>C.M4 Assess how rehabilitation programmes support equine health and welfare.</p>	<p>C.D3 Justify the planning decisions made for rehabilitation programmes to support equine health and welfare.</p>

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aims: A and B (A.P1, A.P2, B.P3, B.P4, A.M1, B.M2, A.D1, B.D2)

Learning aim: C (C.P5, C.P6, C.M3, C.M4, C.D3)

Further information for teachers and assessors

Resource requirements

There are no special resources required for this unit.

Essential information for assessment decisions

Learning aims A and B

For distinction standard, learners must cover at least three injuries and/or conditions that affect equine performance, at least one of which must be multifactorial such as chronic lameness. They will consider the scenarios that may have led to the problem.

Learners will detail the processes that may be used to confirm or rule out particular injuries or conditions, including those which may be carried out by the handler, and the more complex diagnostic techniques that a qualified veterinarian may consider using, with multifactorial problems. Learners will make judgements in relation to the advantages and disadvantages of different recognition methods, including cost and effectiveness.

Learners will consider the therapies available to assist recovery from these injuries or conditions, the treatment process, and the evidence for their effectiveness and potential consequences, giving careful consideration to the regulation of those therapies in the context of UK laws. Written work will be logically structured and will demonstrate a well-rounded understanding of the prognosis for recovery.

For merit standard, learners will give a considered account of a minimum of three injuries and/or conditions, exploring how several elements may affect the likelihood of occurrence in equines, with reference to the pre-existing factors, lifestyle and work demands. They will discuss the methods used by veterinarians and therapists to correctly recognise underlying causes of injuries and/or conditions.

Learners will use evidence to interrogate the effectiveness of equine therapies in recovery from performance-related injuries. They will explore reasons why some equine therapies are accepted, and others are not recognised as effective practices by veterinarians or insurance companies. Learners will also explore the possible consequences of using therapies that have not been sanctioned by a veterinarian. Written work will be logical and coherent.

For pass standard, learners will give a basic account of how three simple injuries and/or conditions are caused, making links to equine lifestyle, work demands and any pre-existing factors. They will detail the methods by which handlers and veterinarians may identify the injury or condition, such as a simple puncture wound or dehydration.

Learners will give details of how and why treatments for these injuries and/or conditions will be used by handlers, veterinarians or equine therapists to aid recovery, for example wounds, cleansing the area, checking for debris inside the wound, using protective boots, etc.

Learners will emphasise the importance of following veterinary advice before involving a therapist. They will consider how and why equine therapists are subject to regulation. Written work will be structured so that the reasoning is clear.

Learning aim C

For distinction standard, learners will design a rehabilitation plan to at least the merit standard. Their rationale will demonstrate a thorough understanding of the health and welfare requirements of each equine and fully account for each of the planning decisions made in terms of the techniques, processes, equipment, skills and personnel. Their rationale will include realistic planning considerations such as cost effectiveness, likely availability of resources and likelihood of recovery.

For merit standard, learners will design appropriate programmes of rehabilitation for each equine, which will be in line with the stated veterinary advice. The equine case studies will include more complex rehabilitation, such as travel to equine therapy centres.

The plans will be accompanied by a rationale that clearly and accurately details the contribution of each part of the plan to the rehabilitation, health and welfare of each of the equines.

For pass standard, learners will use case studies to design a programme of rehabilitation for each equine, which will be in line with the stated veterinary advice. The programme will be appropriate to support the health and welfare needs of the equine considered.

The rationale will give logical reasons for major decisions taken when planning.

Links to other units

This unit links to:

- Unit 1: Equine Structure, Form and Function
- Unit 2: Equine Diet and Nutrition
- Unit 3: Managing Equine Disease
- Unit 6: Equine Health and Husbandry.

Employer involvement

Centres can involve employers in the delivery of this unit if there are local opportunities to do so. There is no specific guidance related to this unit.

Unit 23: Investigative Research Project in the Equine Sector

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners study the principles and purposes of research in the equine sector and develop the skills needed to conduct their own small-scale research project.

Unit introduction

Conducting research projects and investigations into issues concerning equine management is a key element of work in the equine sector. Research enables those working with equines to question and evaluate new or traditional working methods, with a view to suggesting alternative approaches. This unit will give you the skills and techniques needed to carry out investigations in the key areas of equine management.

In this unit, you will follow the research process from start to finish. You will study the methods used in effective research, identify a project, conduct the research and present your findings. You will critically examine the process and reflect on this to improve your analytical and presentation skills.

The research skills and techniques you learn in this unit are essential for a career in managing equines, such as improving equine welfare or developing a breeding programme. The unit will also help to give you further research opportunities at a higher level in equine management or other fields of study or interest.

Learning aims

In this unit you will:

- A** Understand the methodologies and processes available when conducting a research project in the equine sector
- B** Carry out a small-scale research project investigating an aspect of equine management
- C** Review the effectiveness of the research project in meeting its stated aims.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Understand the methodologies and processes available when conducting a research project in the equine sector	A1 Research methodology A2 Investigative project processes	A research portfolio showing planning and decision processes leading to chosen project and methodology.
B Carry out a small-scale research project investigating an aspect of equine management	B1 Planning for an equine management project B2 Carrying out an equine management project B3 Monitoring an equine management project B4 Reporting and presenting the project outcomes in an appropriate format	A portfolio, including: <ul style="list-style-type: none"> • detailed planning • a report, artefact or other realisation of the project • evidence of regular project monitoring • a presentation of the report or other realisation and summary of findings • review of the project and the outcome.
C Review the effectiveness of the research project in meeting its stated aims	C1 Review the project	

Content

Learning aim A: Understand the methodologies and processes available when conducting a research project in the equine sector

A1 Research methodology

- Research sources:
 - primary data collection, including sampling
 - secondary data collection and the use of published sources
 - hypotheses, null hypotheses and the scientific method
 - reliability, validity of sources
 - circular references.
- Methods of reporting and types of project outcomes:
 - the extended essay
 - scientific papers
 - audio-visual presentations
 - design or product, e.g. plans, artefacts, computer-based products, such as creation of web-based content or applications (apps).
- Decision making:
 - the decision-making process
 - subjectivity and objectivity
 - developing qualitative and quantitative criteria to aid decision making.

A2 Investigative project processes

- Planning frameworks:
 - scheduling
 - task and activity lists
 - use of timelines
 - flow diagrams
 - critical path analysis
 - monitoring methods.
- Factors that affect planning:
 - internal factors, e.g. workload, personal commitments, motivation
 - external factors, e.g. the target audience, seasonal or time-limited data collection, financial or technological constraints and opportunities, availability of interviewees
 - resourcing considerations, e.g. seasonality, reproductive cycles of equines, availability of equipment
 - planning for health and safety issues and other regulatory constraints
 - the need for contingency planning and problem solving.
- Investigating relevant topics:
 - suitability and feasibility
 - using decision-making methods to decide on a project, e.g. personal interest and expertise, usefulness to sector, stakeholder needs
 - selecting a final project and developing the aims and objectives, and the project title.

Learning aim B: Carry out a small-scale research project investigating an aspect of equine management

B1 Planning for an equine management project

The application of planning tools and methods to create a project plan:

- risk analysis
- absolute and relative timings
- identification of critical points, tasks and activities
- identification of deadlines
- development of project record keeping.

B2 Carrying out an equine management project

Following a plan to carry out a project:

- maintaining project record keeping
- complying with task lists and schedules
- completing within planned timescales and using resources
- producing a completed equine sector-related investigative project.

B3 Monitoring an equine management project

Following a plan to monitor a project in the equine sector:

- monitoring through formative reviews
- use of problem-solving techniques to identify and overcome challenges
- use of contingency planning to overcome obstacles
- incorporating justified changes to the project plan.

B4 Reporting and presenting the project outcomes in an appropriate format

- Reporting formats, including:
 - project title
 - aims and objectives
 - factors affecting project
 - methodologies used
 - findings, results or outcomes
 - conclusions, recommendations
 - appendices
 - referencing and acknowledgements, e.g. Harvard referencing.
- Presenting reports:
 - tailoring format to meet needs of target audience and stakeholders
 - presentation methods, e.g. paper, oral, audio-visual.

Learning aim C: Review the effectiveness of the research project in meeting its stated aims

C1 Review the project

- Constructing an appropriate evaluation framework, including relevant criteria, e.g. qualitative, quantitative, peer review.
- Strengths and weaknesses of the research process.
- Validity and reliability of results, e.g. bias error, use and misuse of statistics.
- Review of conclusion, including the extent to which the investigation has met its stated aims.
- Relevance of recommendations to equine sector.
- Potential areas for further development of the research.
- The role and importance of research in supporting continuing professional development (CPD) in the equine sector.
- Personal skills, e.g. autonomy, decision making, time management.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand the methodologies and processes available when conducting a research project in the equine sector		A.D1 Justify the choice of research proposal and methodology in terms of suitability and relevance to the stated aims of the project.
A.P1 Explain reasons for the selection of a specific equine sector research proposal. A.P2 Explain the methodologies appropriate to the selected project.	A.M1 Analyse the extent to which the proposed research methodology can meet the aims of the research proposal.	
Learning aim B: Carry out a small-scale research project investigating an aspect of equine management		B.D2 Evaluate the success of the equine sector research project against agreed management and evaluation frameworks. C.D3 Evaluate the success of the equine sector research project in meeting its stated aims, with reference to the research, planning, and monitoring methods used.
B.P3 Demonstrate the management of an equine sector research project using agreed project frameworks. B.P4 Explain the findings of the investigative equine sector research project in a suitable format.	B.M2 Analyse the findings of the equine sector investigative research project. B.M3 Assess the effectiveness of project management against agreed project frameworks.	
Learning aim C: Review the effectiveness of the research project in meeting its stated aims		
C.P5 Explain how the outcome of the investigative equine sector research project met the aims of the project plan.	C.M4 Assess the outcome of the investigative equine sector research project, making recommendations for improvements.	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aims: B and C (B.P3, B.P4, C.P5, B.M2, B.M3, C.M4, B.D2, C.D3)

Further information for teachers and assessors

Resource requirements

There are no specific additional requirements for this unit.

Essential information for assessment decisions

Learning aim A

For distinction standard, learners must present a rational decision-making process resulting in their choice of research project. They must show that they have applied the decision-making process to all alternative proposals and have reasoned arguments for rejecting them. Learners will give a clear assessment of the resource and feasibility implications for all the proposals and will demonstrate a consistent objectivity in their decision making. They will have a clear set of aims and objectives to be achieved and will construct a title for the project that reflects them. Learners will have a clear understanding of the methodologies they intend to use and will understand the limitations of their chosen methodologies.

For merit standard, learners must consider at least two approaches to conducting their selected project and give reasons why they have selected the methodologies chosen for their particular project. They will use agreed criteria to make their decision and will compare the options they identified in light of these criteria. They will demonstrate a clear understanding of the resources they will use, the format of the finished project and the factors that will affect the progress of the project. Learners will clearly articulate the aims, objectives and project title.

For pass standard, learners must investigate a range of suitable projects from which their final project will be selected, giving evidence that shows they have considered methodological and resource implications. Learners will clearly relate their chosen project to one or more mandatory units from the equine management qualification. Learners will carefully consider their project title, aims and objectives before they present evidence for assessment. They will usually favour one title over alternatives and will need to demonstrate objectivity in their choice.

Learning aims B and C

For distinction standard, learners must present their findings against stated aims in a professional manner and show an in-depth knowledge of the subject studied. They must be aware of other research in the same area and be able to incorporate this appropriately. Learners will identify areas for further study. They will have a clear audit trail from plan to outcome, showing the progress of the project, including a comprehensive and proactive research monitoring schedule. Learners will articulate the differences between the project product and the project process clearly. They will construct and use an appropriate evaluation framework, drawing on value and numerical analytical techniques.

For merit standard, learners must effectively manage the progress and completion of their chosen project. They must give comprehensive documentation that they have created and they must have followed a detailed plan that includes regular monitoring. Learners will complete tasks to schedule, identifying and overcoming obstacles and meeting the aims and objectives of the project. They will complete the project in an agreed timescale and to an agreed format. The findings of the project will be articulated clearly and analysed either numerically or subjectively. Learners will complete their project with due regard for regulatory requirements, including health and safety legislation. They will also reflect accurately on the progress of the project and the personal skills they have practised.

Learners will assess the outcome of the project against the stated aims and objectives. They will identify strengths and weaknesses of the project and the degree to which the project aims and objectives have been realised. Learners will identify valid opportunities for improvement, for example through further research or application of their findings.

For pass standard, learners must create and follow a plan to complete their project and monitor its progress. They will complete the project in an agreed timescale, making adjustments where identified. The findings of the project will be presented and explained in a format suitable for the audience. Learners will relate the outcome of the project to the aims and objectives. They will explain how the findings meet the stated aims and objectives.

Links to other units

This unit links with all others in the specification.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local equine businesses
- contribution of ideas to unit assignment/project materials
- observation during work experience
- support from local equine business staff as mentors.

Unit 24: Practical Skills in Animal Science

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners develop the practical skills necessary to carry out and report on scientific investigations in the laboratory.

Unit introduction

Working with animals can include working at a microbiological or chemical level. Whether you are part of a scientific team investigating bacterial infections in a veterinary laboratory, or investigating the effect of biochemical changes in animal bodies, laboratory work at this level requires accurate, methodical practical skills and reporting processes.

In this unit, you will learn how to apply scientific theory in order to safely plan and carry out experiments, and report on investigations in bacterial growth, chemical kinetics and essential analytical chemistry. You will develop the skills needed to safely investigate chemical and microbiological processes and be able to report on your experiments using the same methods as professional scientists.

This unit will help you progress to higher education courses in the fields of biological science, or prepare you for work as a laboratory assistant working with technicians in the animal industry.

Learning aims

In this unit you will:

- A** Understand how to plan, record and communicate findings of scientific investigations in animal science
- B** Explore the skills necessary to work safely with micro-organisms in order to carry out investigations in bacterial growth
- C** Explore the skills necessary to work safely with chemicals in order to carry out experiments.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
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	A portfolio including: <ul style="list-style-type: none"> • risk assessments • tables and graphs of data • analytical reports • investigation reports • journal paper critiques.
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	A portfolio including: <ul style="list-style-type: none"> • laboratory notebooks • reports of background knowledge required for particular investigations
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	<ul style="list-style-type: none"> • scientific drawings • tables and graphs of data • quantitative and qualitative analysis of data • investigation reports • presentation of investigative findings.

Content

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

- Essential considerations when taking scientific approaches to answer research questions through carrying out safe scientific experiments and investigations of phenomena.
- Safe working practice in laboratories, to include: purpose and legalities of safe working policies, laboratory safety symbol interpretation, use of bench space, use of fume cupboards, personal protective equipment (e.g. goggles, lab coats and choice of glove material), laboratory hazard identification and risk management, control measures (including tidiness, waste disposal, dealing with spillages and essential first aid).
- Planning steps for safe, valid and reproducible experiments and investigations, e.g. types of variables, range and repeats.
- Reliable and valid recording of observations, to include use of laboratory notebooks.

A2 Recording and analysis of data

Recording of data, to include use of laboratory notebooks.

- Data handling: production of
 - tables (with correct headings and units)
 - graphs (e.g. line, bar, histograms; lines of best fit).
- Appropriate use of mathematical and statistical analyses
 - calculation of average values (mean, median and mode)
 - basic statistical analyses, e.g. standard error versus standard deviation, use of confidence intervals, one- and two-tailed t-tests.
- Drawing conclusions from analysis of investigative data, making recommendations where appropriate.
- Evaluation of techniques and equipment to improve validity and accuracy of results, to include sources and levels of random and systematic error.

A3 Scientific communication methods for different audiences

Standard layout of scientific reports and journal articles: title, authors, abstract, summary, table of contents, introduction, aims/hypothesis, materials, methods, results, discussion, conclusion, references.

- Scientific communication for other scientists and the general public:
 - scientific terminology, use of statistics, peer review process, referencing methods
 - changes to presentation methods to suit different audiences (posters, text, tables, graphs, diagrams)
 - mass media (newspapers, magazines, internet) and reliability of information sources.

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

Fundamental concepts of bacterial identification, media and growth needed in order to carry out useful microbial investigations.

- Comparative features of prokaryotic and eukaryotic cells and tissues.
- Awareness of pathogenic bacteria and safety precautions when working with micro-organisms.
- Classification and identification of bacteria: binomial nomenclature, conventional bacterial taxonomy using keys, colony morphology, molecular taxonomy and use of Bergey's manual.
- Environmental factors affecting growth:
 - aerobic and anaerobic conditions (to include why incubation should not take place at temperatures of around 37 °C outside specialist microbiological laboratories)
 - pH
 - temperature
 - water.
- Bacterial growth curve stages in batch cultures – lag, exponential, stationary and death.
- Purposes and results of:
 - selective media
 - antibiotic sensitivity tests (to include measurement of a zone of inhibition)
 - simple and differential staining.
- Agar and broth preparation, advantages and disadvantages of using solid and liquid media, plate pouring.
- Techniques required for effective use of microscopes:
 - use of light microscopes, oil immersion lenses, stains and slides
 - scientific drawing of cells and tissues.

B2 Practical isolation and culture of bacteria

Techniques required for effective microbial investigation.

- Aseptic technique, sterilisation methods, disinfection methods; inoculation of plates and broths with microbes, incubation, identification of colonies.
- Total cell counts, viable cell counts, cell mass, turbidity.

Learning aim C: Explore the skills necessary to work safely with chemicals to carry out experiments

C1 Theoretical background for experimentation in animal science

Standard scientific representation, terminology, units, calculations and analytical methods in order to plan, carry out and analyse the results of scientific investigations.

- General, empirical and structural formulae, use of full chemical equations.
- Scientific terminology, including concentration, volume, surface area, rate of reaction (including initial and overall rates), pH, variables (dependent, independent, extraneous).
- Units of measurement, to include:
 - distance (μm , nm, mm)
 - time (s)
 - amount (mol)
 - mass (μg , mg, g)
 - volume (cm^3 , ml, μl , l, dm^3)
 - concentration (M, mol dm^{-3} , mM)
 - pH
 - rate ($\text{cm}^3 \text{s}^{-1}$, $\text{mol dm}^3 \text{s}^{-1}$).
- Necessary calculations: pH and $\text{p}K_a$ calculations, volumetric calculations: moles = concentration x volume ($M = CV$; $M_aV_a = M_bV_b$), yield calculations (percentage, theoretical and actual).
- Effects of buffers.
- Constructing titration curves.
- Constructing and interpreting graphs showing rates of reaction.

C2 Investigating biochemical phenomena in animal science

Considerations to be aware of when carrying out chemical experiments in order to safely and effectively investigate chemical phenomena.

- Use of relevant glassware for chemical experimentation.
- Accurate measurements of quantities (to include mass of solids, volume of liquids and volume of gases), making standard solutions and serial dilutions.
- Use of indicators, to include universal indicator and pH paper.
- Titration to determine end-points of reactions.
- Varying reaction conditions, e.g. temperature changes, varying concentrations and surface area of reactants, changing pressure of systems, use of catalysts and enzymes.
- Measuring rates of reactions, to include those catalysed by enzymes.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand how to plan, record and communicate findings of scientific investigations in animal science		A.D1 Justify the effectiveness of own planning, recording and communication methods used in completed valid scientific investigations.
A.P1 Explain planning and recording processes for valid scientific investigation. A.P2 Explain investigative findings for different audiences.	A.M1 Analyse the effectiveness of planning, recording and communication methods used in scientific investigations.	
Learning aim B: Explore the skills necessary to work safely with micro-organisms in order to carry out investigations in bacterial growth		BC.D2 Evaluate the effectiveness of experimental techniques used in completed valid scientific investigations. BC.D3 Evaluate the data gained from complete practical investigations, presenting findings in standard scientific format for different audiences.
B.P3 Demonstrate safe investigation of bacterial growth. B.P4 Explain the findings of an investigation of bacterial growth.	B.M2 Demonstrate methodical investigation of bacterial growth analysing own data in an efficient manner to answer a research question.	
Learning aim C: Explore the skills necessary to work safely with chemicals in order to carry out experiments		
C.P5 Demonstrate safe and methodical investigation of biochemical reactions. C.P6 Explain the findings of an investigation of biochemical reactions.	C.M3 Demonstrate methodical investigation of biochemical reactions analysing the contribution of different variables to the outcome.	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aims: B and C (B.P3, B.P4, C.P5, C.P6, B.M2, C.M3, BC.D2, BC.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- individual laboratory notebooks
- glassware – beakers, stirring rods, burettes, measuring cylinders, pipettes, flasks, test tubes, funnels
- stands and clamps, test tube racks, tripods, gauze, heat-proof mats, Bunsen burners, balances, filter paper, non-absorbent cotton wool
- distilled water, disinfectants, 70% alcohol (industrial denatured alcohol (IDA)), chemicals, buffers and indicators dependent on the particular investigations centres wish to examine
- thermometers, pH meters, stopwatches/timers (data logging equipment and software could be used with a variety of sensors to measure temperature, pH, turbidity etc.)
- light microscopes, slides, oil immersion lenses, common stains; incubator, autoclave/pressure cooker, refrigerator
- petri dishes, inoculating loops, spreaders, haemocytometers; non-pathogenic bacterial cultures, culture media, universal/McCartney bottles.

Essential information for assessment decisions

Learning aim A

For distinction standard, learners must critically examine the strengths and weaknesses of their planning, recording and communication processes in a wide context, supporting their assertions with suitable supporting evidence. This will be taken from other suitable resources and from their own investigations.

For merit standard, learners must identify strengths and weaknesses in their own planning, which will be detailed and considered, and in their recording and communication of scientific investigations. They will use this to explain how effectively these processes contributed to answering the research question. Learners can compare their results with expected ones, characterised by reference to the research question and hypotheses. They are also able to articulate how the presentation of investigative findings may change depending on the intended audience.

For pass standard, learners must complete documentation demonstrating the intention to carry out an investigation that both is safe and aims to collect valid data to answer the research question. This will be shown through the use of correctly completed risk assessments, planning for an adequate range and number of observations to address the research question, and taking into account prior knowledge. Learners will adapt their reporting of investigative findings to address at least two different audiences.

Learning aims B and C

For distinction standard, learners must evaluate the methods, techniques and equipment they have used, identifying the potential sources of random and systematic error, and commenting on the impact this may have had on their results. Learners will place their data in the context of known parameters for the experiments they have carried out. Learners must also comment on if and how their choices of equipment and techniques could have been improved, along with any unresolved questions that have arisen during the course of the experiment.

For merit standard, learners must demonstrate that data collection has been carried out in a methodical and precise way, utilising tables with suitable headings and use of units. They must process the data they have generated in an appropriate manner to answer the research question. Graphs and tables will be neatly constructed and correctly labelled throughout. Learners must demonstrate careful consideration of the variables influencing their investigations. They must identify the applicable range of variables, discuss their potential effects on investigation outcomes and describe how confounding variables were controlled and/or monitored so as to gain valid and reliable data. Learners' practical abilities are characterised by orderly preparation of materials, and by demonstrating skilful use of equipment. They are able to work with good aseptic technique that leads to little or no contamination, and produce observations that lead to valid data.

For pass standard, learners must carry out an investigation in bacterial growth, as well as investigating at least two factors that affect the rate of a biochemical reaction. They are able to devise and interpret risk assessments and comply with hazard reduction practices. Learners are well prepared for each experiment, both in terms of prior knowledge and in the preparation of their work area. Enough data is gathered to allow the identification of trends and relationships in the results. Learners are able to report accurately on the findings of the investigations.

Links to other units

This unit links to:

- Unit 10: Animal Metabolism
- Unit 11: Advanced Animal Nutrition.

Employer involvement

This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local animal businesses
- contribution of ideas to unit assignment/project materials
- opportunities for observation during work experience
- support from local animal business staff as mentors.

Unit 25: Animal Metabolism

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners study the biochemical basis of metabolic reactions in animals.

Unit introduction

Animals carry out an amazing number of chemical reactions in their cells at any given moment. An understanding of the dynamics of cellular chemistry and energy production allows a greater appreciation of how animals meet their everyday physiological needs.

In this unit, you will study the structure of and interactions between atoms and molecules, factors affecting the rate of biochemical reactions and the use of biological molecules to meet the energy demands of animals.

This unit will help you to progress to higher education courses in the field of biological science or prepare you for work in animal health and nutrition, environmental health, veterinary nursing and analytical and/or diagnostic settings.

Learning aims

In this unit you will:

- A** Understand atomic structure and bonding in order to establish the basis of biochemical reactions
- B** Explore factors affecting reactions in order to understand how biochemical reactions take place inside the animal body
- C** Understand the production of adenosine triphosphate in cellular respiration for animals to utilise energy.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
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	Portfolio of evidence on the bonding and non-bonding substances present in polar and non-polar substances related to their properties. Evidence may be gained from classwork exercises, investigation and research, and include laboratory notebooks, investigation write-ups, reports and presentations.
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	Portfolio of evidence on the role of blood in establishing conditions for chemical reactions to take place, including exchange of nutrients and waste from respiring cells. Evidence may be gained from classwork exercises, investigation and research, and include laboratory notebooks, investigation write-ups, reports and presentations.
C Understand the production of adenosine triphosphate in cellular respiration for animals to utilise energy	C1 Aerobic respiration C2 Anaerobic respiration C3 Other respiratory substrates	

Content

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

The influences that atomic configurations have on the properties of molecules.

- Atomic structure:
 - relative mass and charge of protons, electrons and neutrons
 - isotopes
 - electron configuration and orbital shape.
- Ion formation and ionisation energies:
 - patterns in first ionisation and successive ionisation energies in groups and periods of the periodic table, influence of proton number and electron shielding on first and successive ionisation energies.
- Differences between elements, compounds and mixtures.
- The use of the periodic table for identifying the relative atomic masses of elements for use in molar calculations.

A2 Bonding and forces of attraction

How atoms interact and rearrange to form molecules and solutions.

- Ionic and covalent bonding:
 - electronegativity, effects of ionic radius and charge, dot-and-cross diagrams
 - the importance of polar and non-polar molecules to biological organisms (to include identification of polar and non-polar molecules).
- The nature of intermolecular forces, to include:
 - permanent dipoles
 - hydrogen bonds.
- Molecular arrangement in the following phases:
 - solids, liquids, gases, emulsions, gels.
- Factors affecting the solubility of substances.
- Production of full chemical equations (including stoichiometry) under standard conditions.
- Oxidation and reduction in terms of electron gain and loss.

Learning aim B: Explore factors affecting reactions in order to understand how biochemical reactions take place inside the animal body

B1 Rates of reaction

The theory behind how reactions take place and what affects the feasibility and speed of those reactions.

- How metabolic reactions in animals take place in smaller steps with controlled energy release.
- Collision theory of reactions, to include:
 - enthalpy changes (to include Hess's law), activation energy and construction of reaction profiles
 - calculation of enthalpy changes in kJ mol^{-1} from given experimental results.
- Factors affecting the rates at which reactions occur in animals and their effects:
 - concentration, temperature, pressure, surface area and catalysts
 - investigating reaction rates:
 - graph construction (concentration–time and rate–concentration)
 - initial rate and continuous monitoring methods
 - deducing orders of reaction from graphs.
- Use of the equation $\Delta G^\circ = \Delta H^\circ - T\Delta S^\circ_{\text{system}}$ to determine the temperature at which a reaction is feasible and the magnitude of useful work produced.

B2 Equilibria

How dynamic equilibria may be established in readily reversible chemical reactions in animals.

- Rates of forward and backward reactions, along with concentrations of reactants and products.
- Le Châtelier's principle and the resulting position of equilibrium (limited to 'lies towards').
- Prediction and justification of the qualitative effect of a change in temperature, concentration or pressure on a homogeneous system in equilibrium.
- Acid-base equilibria as illustrated by the buffering capacity of blood, to include:
 - Bronsted–Lowry definitions
 - the construction of titration curves
 - pH and $\text{p}K_a$ calculations
 - effects of buffers.

B3 Enzymes as biological catalysts

How enzymes catalyse reactions under different environmental conditions.

- Enzyme structure, specificity and the induced fit hypothesis, enzyme activation.
- Intracellular and extracellular enzyme action.
- Influence of temperature, pH, substrate and enzyme concentration on rate of activity.
- Enzyme inhibition:
 - competitive, non-competitive, reversible and irreversible inhibition
 - awareness that many drugs used to treat humans are enzyme inhibitors or activators, and that these can be fatally toxic to animals (for example ibuprofen toxicity in dogs and cats, aspirin in cats).

Learning aim C: Understand the production of adenosine triphosphate in cellular respiration for animals to utilise energy

C1 Aerobic respiration

The stages and control of aerobic respiration at an atomic and molecular level, and its importance in animal functions.

- Why animals require energy and the units of measurement for energy (kJ mol^{-1}).
- ATP production, stages of aerobic respiration of glucose and the relationship between mitochondrial structure and function in cellular respiration:
 - ATP hydrolysis and ADP phosphorylation
 - conversion of monosaccharides to pyruvate during glycolysis in the cytoplasm, including:
 - phosphorylation of hexose molecules by ATP
 - production of glycerate 3-phosphate (GP)
 - production of reduced coenzyme ($\text{NADH} + \text{H}^+$) and ATP
 - energy investment and energy generation phases.
 - locations of the link reaction and Krebs cycle
 - the events of the link reaction in producing acetyl coenzyme A using pyruvate dehydrogenase; molecules in the Krebs cycle, and production of:
 - carbon dioxide, CO_2
 - nicotinic adenine dinucleotide, $\text{NADH} + \text{H}^+$
 - reduced flavin adenine dinucleotide, FADH_2
 - adenosine triphosphate, ATP
 - water, H_2O
 - the electron transport chain and ATP synthase:
 - location, role in generating ATP (oxidative phosphorylation), ATP synthesis by chemiosmosis, relation of the amount of ATP produced to the flow of electrons through the electron transport chain
 - role of oxygen as a terminal electron acceptor forming water.
- Net molecular yield from these processes.

C2 Anaerobic respiration

The usefulness of anaerobic respiration to animals.

- Circumstances where animals need to respire anaerobically, use of $\text{NADH} + \text{H}^+$ in pyruvate reduction, production of lactate, consequences of lactate toxicity and oxygen deficit.
- Difference in ATP yields from one molecule of hexose sugar in aerobic conditions as compared with anaerobic conditions.
- Role of the Cori cycle in the liver and in contracting muscles, to include net reactions for conversion of glucose to lactate, gluconeogenesis and overall Cori cycle.

C3 Other respiratory substrates

How and when other biological molecules may be used to produce ATP.

- Substrate-level phosphorylation of fatty acids.
- Gluconeogenesis from carbohydrates, proteins and lipids.
- Protein hydrolysis and entry of amino acids to Krebs cycle.
- Relative energy values of different biological molecules.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Understand atomic structure and bonding in order to establish the basis of biochemical reactions		A.D1 Evaluate the bonding and intermolecular forces present in polar and non-polar substances in relation to their properties.
A.P1 Describe atomic structure and ion formation. A.P2 Describe the types of intermolecular and intramolecular bonding.	A.M1 Analyse the trends in ionisation energies of elements in the periodic table.	
Learning aim B: Explore factors affecting reactions in order to understand how biochemical reactions take place inside the animal body		BC.D2 Review the role of blood in establishing the conditions necessary for biochemical reactions and respiration to take place in the body. BC.D3 Evaluate how biochemical reactions meet the energy needs of different animals.
B.P3 Explain the factors affecting rates of reaction. B.P4 Explain how the acid dissociation constant (K_z) provides information about the extent to which acids and bases dissociate in aqueous solution.	B.M2 Analyse experimental data to determine the feasibility of chemical reactions and the position of equilibrium.	
Learning aim C: Understand the production of adenosine triphosphate in cellular respiration for animals to utilise energy		
C.P5 Explain the processes involved in aerobic respiration. C.P6 Explain the processes involved in anaerobic respiration.	C.M3 Analyse the contribution of different substrates to respiration in animals.	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aim: A (A.P1, A.P2, A.M1, A.D1)

Learning aims: B and C (B.P3, B.P4, C.P5, C.P6, B.M2, C.M3, BC.D2, BC.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- laboratory notebooks
- standard laboratory glassware and consumables dependent on the investigations centres wish to use.

Essential information for assessment decisions

Learning aim A

For distinction standard, learners must give a thorough and comprehensive account of the properties of both polar and non-polar substances, using at least two examples of each. They also compare and contrast the contribution of intermolecular and intramolecular forces to the interactions of those molecules in the animal body.

For merit standard, learners must make reasoned, analytical judgements on the trend in ionisation energies both down a group and across a period, discussing the effects of shielding and proton number. They must demonstrate their understanding of the difference between energy required for first and successive ionisation energies, and the contribution of ionisation to molecule formation. Learners' work will be logically structured and illustrated where appropriate, interrelating facts and concepts, with the correct use of scientific terminology throughout.

For pass standard, learners must recall knowledge by describing the atomic structure of two atoms and two ions, describing the contribution of the subatomic particles to the mass and charge of each. This must include the use of electronic configuration notation. Learners must also describe each of the intramolecular and intermolecular forces listed in the unit content, using relevant examples and appropriate diagrams in each case. Work will be accurate overall.

Learning aims B and C

For distinction standard, learners must evaluate how blood affects the rates of biochemical reactions in the body. Work will have a coherent line of reasoning apparent throughout and a deep understanding of the subject will be demonstrated. Learners will use examples of two biochemical reactions that blood has an impact in regulating, in addition to allowing the exchange of gases, nutrients and waste from aerobic and anaerobic respiration in cells. Balanced chemical equations will be given for each of these, along with the use of appropriate diagrams to illustrate how dynamic equilibria between cellular and blood chemistry are set up and maintained. Learners must draw together their knowledge and understanding from across the learning aims to evaluate how the biochemical reactions meet the energy needs of animals, using detailed analysis and research to justify conclusions.

For merit standard, learners will methodically structure their analysis of experimental data, with good-quality graphs constructed and relevant conclusions drawn that demonstrate an understanding of the link between theory and practice. Learners will determine the feasibility of at least two reactions from given pathway data and two graphs of ΔG° will be constructed, using information from a ΔH° and $T\Delta S^\circ$ system, from which the positions of equilibria will be qualitatively described.

Learners must analyse the relative energy values of least two respiratory substrates other than glucose. They will include the role of the Cori cycle in making these substrates available for respiration, including the locations and reactions that take place. Chemical structures will be drawn clearly and labelled appropriately, and correct scientific terminology will be used throughout.

For pass standard, learners must recall knowledge to explain the effects of concentration, temperature, pressure, surface area, and non-biological and biological catalysts on rates of reaction. They must outline what K_a means in terms of the extent to which acids and bases dissociate in aqueous solution and describe the meaning of K_a in the context of their (given) experimental data in at least one instance.

Learners must show their understanding by explaining the features of processes occurring at each stage of aerobic and anaerobic respiration of glucose (glycolysis, link reaction, Krebs and electron transfer chain). This will include locations, reactants, products, enzymes, coenzymes, energy yield and relevant biochemical conditions as appropriate for each of the stages. Learners' research will be relevant and well-organised leading to suitable judgements. Work will be free of major fundamental errors.

Links to other units

This unit links to:

- Unit 1: Equine Structure, Form and Function
- Unit 9: Practical Skills in Animal Science
- Unit 11: Advanced Animal Nutrition.

Employer involvement

Centres may involve employers in the delivery of this unit if there are local opportunities. This unit would benefit from employer involvement in the form of:

- guest speakers
- technical workshops involving staff from local animal businesses
- contribution of ideas to unit assignment/project materials
- opportunities for observation during work experience
- support from local animal business staff as mentors.

Unit 26: Equine Function at the Cellular Level

Level: **3**

Unit type: **Internal**

Guided learning hours: **60**

Unit in brief

Learners study the cellular structure, cycles and genetic control of equine function, along with the microscopy techniques used to examine equine cells and structures.

Unit introduction

Have you ever wondered how equines are able to grow and reproduce? Equine cells are the fundamental basis of how a whole organism can work together. Studying equine cells will give you a deeper understanding of the fascinating processes that allow equines in good health to function. In this unit, you will study how cells are structured and the processes that are carried out during a cellular lifetime. You will examine the balances of cellular activities and how each one is controlled so that they are able to respond to the needs of the equine organism at a moment's notice, and the part the genetics of the cell plays in equine growth and reproduction. You will gain hands-on experience of microscopy in looking at equine specimens. You will understand how more technologically-advanced microscopy techniques and equipment allow us to study the structure and function of equine cells and tissues.

This unit will help you progress to studying equine science and similar higher education courses, or to employment in equine-related job roles, for example equine laboratory assistant.

Learning aims

In this unit you will:

- A** Examine how cellular ultrastructure and cell activities affect equine growth and function
- B** Understand how genetics are involved in equine cellular control and inheritance
- C** Explore how the use of microscopy contributes to an understanding of normal cell function in equines.

Summary of unit

Learning aim	Key content areas	Recommended assessment approach
A Examine how cellular ultrastructure and cell activities affect equine growth and function	A1 Structure and function of equine cells A2 Cellular activities A3 The cell cycle	A report on equine cellular ultrastructure and how cells control their internal environment.
B Understand how genetics are involved in equine cellular control and inheritance	B1 Deoxyribonucleic acid (DNA) and ribonucleic acid (RNA) B2 Gene expression B3 Inheritance	
C Explore how the use of microscopy contributes to an understanding of normal cell function in equines	C1 Microscopy techniques and equipment	A report on the use of microscopes to examine cells and their components; microscopy work, witness statements etc.

Content

Learning aim A: Examine how cellular ultrastructure and cell activities affect equine growth and function

A1 Structure and function of equine cells

Location, appearance, size, structure and functions of cells and their organelles:

- cellular ultrastructure, to include:
 - nucleus, nucleolus, mitochondria, rough and smooth endoplasmic reticulum (ER), Golgi apparatus, secretory and conventional lysosomes, cilia, 80S ribosomes, centrosomes, peroxisomes
 - cytoskeleton, to include types and roles of motor proteins
 - fluid mosaic model of plasma membrane, e.g. role in cell signalling and recognition
- specialised cells and adaptations – sensory, relay and motor neurons; red blood cells; ciliated cells
- stem cells and differentiation of cells into tissue types, e.g. the totipotency of embryonic stem cells, potential for stem cell therapy.

A2 Cellular activities

Processes, purposes and factors affecting cellular activities.

- Adenosine triphosphate (ATP) as the universal biological energy currency and the role of mitochondria.
- Conditions resulting in aerobic and anaerobic respiration.
- Stages and results of aerobic and anaerobic respiration, to include glycolysis, the link reaction and the Krebs cycle:
 - transport of substances in and out of cells (to include energy requirement, concentration gradients and results)
 - active transport
 - diffusion (simple and facilitated)
 - osmosis
 - endocytosis and exocytosis
 - pinocytosis and phagocytosis.
- Apoptosis and necrosis.
- Enzyme structure levels (primary, secondary, tertiary and quaternary) and functions as biological catalysts:
 - processes, bonds and enzymatic roles in both catabolic and anabolic reactions, to include polysaccharides/mono and disaccharides, lipids/fatty acids and glycerol; proteins/amino acids.

A3 The cell cycle

Processes, purposes and results of stages of the cell cycle, mitosis and meiosis:

- gap and synthesis stages during interphase
- stages in mitosis and meiosis – prophase, metaphase, anaphase, telophase (I and II in meiosis), cytokinesis
- equine spermatogenesis and oogenesis.

Learning aim B: Understand how genetics are involved in equine cellular control and inheritance

B1 Deoxyribonucleic acid (DNA) and ribonucleic acid (RNA)

Structure and function of DNA and RNA:

- DNA and RNA structure, e.g. sugar, phosphate, bases (purines and pyrimidines)
- semi-conservative replication of DNA
- roles of messenger RNA (mRNA), transfer RNA (tRNA), short interfering RNA (siRNA).

B2 Gene expression

Processes and molecules involved in the expression of genes:

- central dogma of polypeptide production:
 - transcription, to include role of RNA polymerase
 - translation, to include the triplet coding for amino acids
 - splicing, e.g. introns and exons
- chromosome formation.

B3 Inheritance

The inheritance of characteristics from parent cells to daughter cells and parents to offspring:

- genetic versus environmental effects
- monohybrid and dihybrid inheritance, e.g. use of Punnett squares to predict phenotypic ratios
- chromosome structure and karyotypes, e.g. homologous pairing during meiosis; variation in chromosome number between species
- increased genetic variety in offspring due to independent assortment and crossing over of chromosomes.

Learning aim C: Explore how the use of microscopy contributes to an understanding of normal cell function in equines

C1 Microscopy techniques and equipment

Theoretical basis and practical application (as appropriate) of light and electron microscopy:

- basic principles of operating light microscopes, scanning electron microscopy (SEM) and transmission electron microscopy (TEM)
- sample preparation for light, SEM and TEM, to include:
 - simple and complex stains, to include iodine, eosin, methylene blue and Gram staining
 - fixing, dehydration, drying, mounting and coating samples
- image production, artefacts and relative resolution differences between light, SEM and TEM
- relationship between actual and magnified sizes, to include relevant calculations.

Assessment criteria

Pass	Merit	Distinction
Learning aim A: Examine how cellular ultrastructure and cell activities affect equine growth and function		
A.P1 Explain the link between cellular ultrastructure and cellular activities. A.P2 Explain how cells divide.	A.M1 Analyse the effect of cellular activities on equine growth and function.	
Learning aim B: Understand how genetics are involved in equine cellular control and inheritance		
B.P3 Compare the structure of DNA and RNA. B.P4 Explain how genes are expressed and inherited.	B.M2 Discuss the involvement of DNA and RNA in cellular control and inheritance.	
Learning aim C: Explore how the use of microscopy contributes to an understanding of normal cell function in equines		C.D3 Evaluate how the study of cellular ultrastructure, using microscopy techniques and equipment, contributes to an understanding of normal equine cells.
C.P5 Explain the use of microscopy techniques and equipment. C.P6 Perform simple microscopy techniques.	C.M3 Assess the suitability of microscopy techniques and equipment in the study of equine cells. C.M4 Perform complex microscopy techniques.	

Essential information for assignments

The recommended structure of assessment is shown in the unit summary along with suitable forms of evidence. *Section 6* gives information on setting assignments and there is further information on our website.

There is a maximum number of two summative assignments for this unit. The relationship of the learning aims and criteria is:

Learning aims: A and B (A.P1, A.P2, B.P3, B.P4, A.M1, B.M2, A.D1, B.D2)

Learning aim: C (C.P5, C.P6, C.M3, C.M4, C.D3)

Further information for teachers and assessors

Resource requirements

For this unit, learners must have access to:

- compound light microscopes
- eye piece graticules and oil immersion lenses
- materials to prepare specimens for examination as appropriate to centre requirements.

Essential information for assessment decisions

Learning aims A and B

For distinction standard, learners must give a detailed account of the structure of equine cell organelles and the importance of each to the normal function of ideal and specialised equine cells. They will address each of the cellular activities specified in the unit content and consider how each of the cellular organelles plays a role in the successful operation of those activities. Learners must address how cells function in each part of the cell cycle and how they prepare for one type of cellular division. They will put these functions in the context of equine growth and function, demonstrating a thorough understanding of the processes involved.

Learners will examine how genetic factors and materials are involved in the normal regulation of cellular activities, including how genetic material is inherited from the parent to the daughter cells. This will involve a consideration of the contribution of dominant and recessive alleles in the genotype to the phenotype of offspring, from a cellular to whole organism level. Written work will be organised logically and be coherent throughout.

For merit standard, learners will consider each cell organelle and how its structure and function relates to cellular activities in both ideal and specialised equine cells. Learners must consider how each cellular activity affects preparation for, and carrying out of, cell division.

They will explore the processes of transcription, translation and splicing in terms of the roles of DNA and RNA, and the contribution of these processes to controlling activities of the equine cell. Written work will be well organised and terminology will be used accurately throughout.

For pass standard, learners must relate the structure to the function of each equine cell organelle in ideal and specialised equine cells. They will give an overview of the major activities the equine cell must carry out and how the structure of the cell allows these activities to take place. Learners will consider how cells divide for given purposes and detail the stages involved in one type of cell division, using diagrams to illustrate their work.

Learners will detail similarities and differences in the structure and function of DNA and RNA, with links to their roles in the expression of genes and the inheritance of genetic material. Written work will be illustrated with accurately labelled diagrams.

Learning aim C

For distinction standard, learners must consider one type of electron microscopy in detail, linking the study of cellular ultrastructure clearly with how the microscopy type used assists with an understanding of equine cells. Learners will contextualise their report with the use of comparisons with light microscopy, discussing the advantages and disadvantages of each in terms of sample preparation, study of images and image resolution. They will illustrate their work with their own drawings taken from the use of a compound light microscope. Drawings will be appropriately drawn and labelled, with the correct calculations of actual and image size. Preparation and examination of specimens must be carried out to at least merit standard.

For merit standard, learners will consider how samples are selected and prepared for use in light and electron microscopy, putting this in the context of how suitable each technique is for looking at different specimens. Illustrations from learners' work with light microscopes will be clearly drawn and labelled and incorporated logically into the report. Learners will carry out more complex preparation and examination of specimens using appropriate procedures and equipment, such as the use of oil immersion lenses or eyepiece graticules.

For pass standard, learners must detail the equipment and its role in techniques used for light, and one type of electron, microscopy. They will use correctly labelled diagrams or photographs of the microscopes they discuss and explain the processes involved in preparing specimens for each type. Written work may be in the form of lists but will be logical and clear. Learners will illustrate their explanation of light microscopy using drawings they have made using a compound light microscope. Learners will carry out simple preparation and examination of specimens using appropriate procedures and equipment.

Links to other units

This unit links to:

- Unit 1: Equine Structure, Form and Function
- Unit 2: Equine Diet and Nutrition
- Unit 24: Practical Skills in Animal Science
- Unit 25: Animal Metabolism.

Employer involvement

Centres can involve employers in the delivery of this unit if there are local opportunities to do so. There is no specific guidance related to this unit.

4 Planning your programme

How do I choose the right BTEC National qualification for my learners?

BTEC Nationals come in a range of sizes, each with a specific purpose. You will need to assess learners very carefully to ensure that they start on the right size of qualification to fit into their 16–19 study programme, and that they take the right pathways or optional units that allow them to progress to the next stage.

If a learner is clear that they want to progress to the workplace they should be directed towards an occupationally-specific qualification, such as a BTEC National Diploma, from the outset.

Some learners may want to take a number of complementary qualifications or keep their progression options open. These learners may be suited to taking a BTEC National Certificate or Extended Certificate. Learners who then decide to continue with a fuller vocational programme can transfer to a BTEC National Diploma or Extended Diploma, for example for their second year.

Some learners are sure of the sector they want to work in and are aiming for progression into that sector via higher education. These learners should be directed to the two-year BTEC National Extended Diploma as the most suitable qualification.

As a centre, you may want to teach learners who are taking different qualifications together. You may also wish to transfer learners between programmes to meet changes in their progression needs. You should check the qualification structures and unit combinations carefully as there is no exact match among the different sizes. You may find that learners need to complete more than the minimum number of units when transferring.

When learners are recruited, you need to give them accurate information on the title and focus of the qualification for which they are studying.

Is there a learner entry requirement?

As a centre it is your responsibility to ensure that learners who are recruited have a reasonable expectation of success on the programme. There are no formal entry requirements but we expect learners to have qualifications at or equivalent to Level 2.

Learners are most likely to succeed if they have:

- five GCSEs at good grades and/or
- BTEC qualification(s) at Level 2
- achievement in English and mathematics through GCSE or Functional Skills.

Learners may demonstrate ability to succeed in various ways. For example, learners may have relevant work experience or specific aptitude shown through diagnostic tests or non-educational experience.

What is involved in becoming an approved centre?

All centres must be approved before they can offer these qualifications – so that they are ready to assess learners and so that we can provide the support that is needed. Further information is given in *Section 8*.

What level of sector knowledge is needed to teach these qualifications?

We do not set any requirements for teachers but expect that centres will assess the overall skills and knowledge of the teaching team to ensure that they are relevant and up to date. This will give learners a rich programme to prepare them for employment in the sector. As part of the requirements of the programme are to involve employers in delivery this should support centres in ensuring that they are following up to date practices when delivering the programme.

What resources are required to deliver these qualifications?

As part of your centre approval you will need to show that the necessary material resources and work spaces are available to deliver BTEC Nationals. For some units, specific resources are required. This is indicated in the units.

How can myBTEC help with planning for these qualifications?

myBTEC is an online toolkit that supports the delivery, assessment and quality assurance of BTECs in centres. It supports teachers with activities, such as choosing a valid combination of units, creating assignment briefs and creating assessment plans. For further information see *Section 10*.

Which modes of delivery can be used for these qualifications?

You are free to deliver BTEC Nationals using any form of delivery that meets the needs of your learners. We recommend making use of a wide variety of modes, including direct instruction in classrooms or work environments, investigative and practical work, group and peer work, private study and e-learning.

What are the requirements for meaningful employer involvement?

Requirements

This BTEC National Extended Diploma in Equine Management has been designed as a Tech Level qualification. As an approved centre you are required to ensure that during their study, every learner has access to meaningful activity involving employers. Involvement should be with employers from the equine management sector and should form a significant part of the delivery or assessment of the qualification. Each centre's approach to employer involvement will be monitored in two ways. It will be monitored at centre level in the first term each year as part of the annual quality management review process that addresses centre strategy for delivery, assessment and quality assurance, when we will ask you to show evidence of how employer involvement is provided for all learners. You will need to show evidence in order to gain reporting clearance for certification. It will be monitored also at programme level as part of the standards verification process to confirm that plans for employer involvement meet the requirements of the specification. These approaches are designed to ensure additional activities can be scheduled where necessary so learners are not disadvantaged (see *Section 8: Quality assurance*).

We know that the vast majority of programmes already have established links with employers. In order to give you maximum flexibility in creating and strengthening employer involvement, we have not specified a particular level of input from employers. However, meaningful employer involvement, as defined below, should contribute significantly to at least **three** units, of which one must be the mandatory unit, *Unit 4: Work Experience in the Equine Sector*.

There are suggestions in many of the units about how employers could become involved in delivery and/or assessment. These suggestions are not exhaustive and there will be other possibilities at local level.

Employer involvement in these units is subject to verification as part of the standards verification process (see *Section 8*).

Definition

Activities that are eligible to be counted as meaningful engagement are:

- structured work experience or work placements that develop skills and knowledge relevant to the qualification
- projects or assessments set with input from industry practitioners
- master classes or guest lectures from industry practitioners
- 'expert witness' reports from practitioners that contribute to the assessment of a learner's work.

There may be other ways in which learners can benefit from contact with employers or prepare for employment, such as listening to careers talks or working in simulated environments. While they provide benefits to learners they do not count as meaningful engagement.

Support

It is important that you give learners opportunities that are high quality and directly relevant to their study. We will support you in this through guidance materials and by giving you examples of best practice.

What support is available?

We provide a wealth of support materials, including curriculum plans, delivery guides, authorised assignment briefs, additional papers for external assessments and examples of marked learner work.

You will be allocated a Standards Verifier early on in the planning stage to support you with planning your assessments. There will be extensive training programmes as well as support from our Subject Advisor team.

For further details see *Section 10*.

How will my learners become more employable through these qualifications?

All BTEC Nationals are mapped to relevant occupational standards (see *Appendix 1*).

In the mandatory content and the selected optional units that focus on technical preparation learners will be acquiring the key knowledge and skills that employers need. Also, employability skills, such as team working and entrepreneurialism, and completing realistic tasks have been built into the design of the learning aims and content. This gives you the opportunity to use relevant contexts, scenarios and materials to enable learners to develop a portfolio of evidence that demonstrates the breadth of their skills and knowledge in a way that equips them for employment.

5 Assessment structure and external assessment

Introduction

BTEC Nationals are assessed using a combination of *internal assessments*, which are set and marked by teachers, and *external assessments* which are set and marked by Pearson:

- mandatory units have a combination of internal and external assessments
- all optional units are internally assessed.

We have taken great care to ensure that the assessment method chosen is appropriate to the content of the unit and in line with requirements from employers and higher education.

In developing an overall plan for delivery and assessment for the programme, you will need to consider the order in which you deliver units, whether delivery is over short or long periods and when assessment can take place. Some units are defined as synoptic units (see *Section 2*). Normally, a synoptic assessment is one that a learner would take later in a programme and in which they will be expected to apply learning from a range of units. Synoptic units may be internally or externally assessed. Where a unit is externally assessed you should refer to the sample assessment materials (SAMs) to identify where there is an expectation that learners draw on their wider learning. For internally-assessed units, you must plan the assignments so that learners can demonstrate learning from across their programme. A unit may be synoptic in one qualification and not another because of the relationship it has to the rest of the qualification.

We have addressed the need to ensure that the time allocated to final assessment of internal and external units is reasonable so that there is sufficient time for teaching and learning, formative assessment and development of transferable skills.

In administering internal and external assessment, the centre needs to be aware of the specific procedures and policies that apply, for example to registration, entries and results. An overview with signposting to relevant documents is given in *Section 7*.

Internal assessment

Our approach to internal assessment for these qualifications will be broadly familiar to experienced centres. It offers flexibility in how and when you assess learners, provided that you meet assessment and quality assurance requirements. You will need to take account of the requirements of the unit format, which we explain in *Section 3*, and the requirements for delivering assessment given in *Section 6*.

External assessment

A summary of the external assessment for this qualification is given in *Section 2*. You should check this information carefully, together with the unit specification and the sample assessment materials, so that you can timetable learning and assessment periods appropriately.

Learners must be prepared for external assessment by the time they undertake it. In preparing learners for assessment you will want to take account of required learning time, the relationship with other external assessments and opportunities for retaking. You should ensure that learners are not entered for unreasonable amounts of external assessment in one session. Learners may resit an external assessment to obtain a higher grade of near pass or above. If a learner has more than one attempt, then the best result will be used for qualification grading, up to the permitted maximum. It is unlikely that learners will need to or benefit from taking all assessments twice so you are advised to plan appropriately. Some assessments are synoptic and learners are likely to perform best if these assessments are taken towards the end of the programme.

Key features of external assessment in equine management

In equine management, after consultation with stakeholders, we have developed the following.

- Unit 1: Equine Structure, Form and Function – learners complete a written examination of the fundamental knowledge of equine tissues, biological systems, anatomy, movement and conformation required for successful equine management. The unit provides fundamental knowledge of equines, which is important for wide-ranging roles, such as groom or horse trainer.
- Unit 2: Equine Diet and Nutrition – learners complete written tasks examining their knowledge and skills in the management of leisure and performance equine diets, including ration formulation and feeding regimes. The unit provides crucial knowledge and skills for wide-ranging roles involving the care and management of equines.
- Unit 3: Managing Equine Disease – learners complete written tasks examining their knowledge and skills in the strategic management of equine disease, including causes, routes of transmission, signs and symptoms, and prevention and treatment strategies. The unit is important for learners seeking key management roles in equine management.

Units

The externally-assessed units have a specific format which we explain in *Section 3*. The content of units will be sampled across external assessments over time through appropriate papers and tasks. The ways in which learners are assessed are shown through the assessment outcomes and grading descriptors. External assessments are marked and awarded using the grade descriptors. The grades available are Distinction (D), Merit (M), Pass (P) and Near Pass (N). The Near Pass (N) grade gives learners credit below a Pass, where they have demonstrated evidence of positive performance which is worth more than an unclassified result but not yet at the Pass standard.

Sample assessment materials

Each externally-assessed unit has a set of sample assessment materials (SAMs) that accompanies this specification. The SAMs are there to give you an example of what the external assessment will look like in terms of the feel and level of demand of the assessment. In the case of units containing synoptic assessment, the SAMs will also show where learners are expected to select and apply from across the programme.

The SAMs show the range of possible question types that may appear in the actual assessments and give you a good indication of how the assessments will be structured. While SAMs can be used for practice with learners, as with any assessment the content covered and specific details of the questions asked will change in each assessment.

A copy of each of these assessments can be downloaded from our website. An additional sample of each of the Pearson-set units will be available before the first sitting of the assessment to allow your learners further opportunities for practice.

6 Internal assessment

This section gives an overview of the key features of internal assessment and how you, as an approved centre, can offer it effectively. The full requirements and operational information are given in the *Pearson Quality Assurance Handbook*. All members of the assessment team need to refer to this document.

For BTEC Nationals it is important that you can meet the expectations of stakeholders and the needs of learners by providing a programme that is practical and applied. Centres can tailor programmes to meet local needs and use links with local employers and the wider vocational sector.

When internal assessment is operated effectively it is challenging, engaging, practical and up to date. It must also be fair to all learners and meet national standards.

Principles of internal assessment

Assessment through assignments

For internally-assessed units, the format of assessment is an assignment taken after the content of the unit, or part of the unit if several assignments are used, has been delivered. An assignment may take a variety of forms, including practical and written types. An assignment is a distinct activity completed independently by learners that is separate from teaching, practice, exploration and other activities that learners complete with direction from, and formative assessment by, teachers.

An assignment is issued to learners as an assignment brief with a defined start date, a completion date and clear requirements for the evidence that they need to provide. There may be specific observed practical components during the assignment period. Assignments can be divided into tasks and may require several forms of evidence. A valid assignment will enable a clear and formal assessment outcome based on the assessment criteria.

Assessment decisions through applying unit-based criteria

Assessment decisions for BTEC Nationals are based on the specific criteria given in each unit and set at each grade level. To ensure that standards are consistent in the qualification and across the suite as a whole, the criteria for each unit have been defined according to a framework. The way in which individual units are written provides a balance of assessment of understanding, practical skills and vocational attributes appropriate to the purpose of qualifications.

The assessment criteria for a unit are hierarchical and holistic. For example, if an M criterion requires the learner to show 'analysis' and the related P criterion requires the learner to 'explain', then to satisfy the M criterion a learner will need to cover both 'explain' and 'analyse'. The unit assessment grid shows the relationships among the criteria so that assessors can apply all the criteria to the learner's evidence at the same time. In *Appendix 2* we have set out a definition of terms that assessors need to understand.

Assessors must show how they have reached their decisions using the criteria in the assessment records. When a learner has completed all the assessment for a unit then the assessment team will give a grade for the unit. This is given simply according to the highest level for which the learner is judged to have met all the criteria. Therefore:

- to achieve a Distinction, a learner must have satisfied all the Distinction criteria (and therefore the Pass and Merit criteria); these define outstanding performance across the unit as a whole
- to achieve a Merit, a learner must have satisfied all the Merit criteria (and therefore the Pass criteria) through high performance in each learning aim
- to achieve a Pass, a learner must have satisfied all the Pass criteria for the learning aims, showing coverage of the unit content and therefore attainment at Level 3 of the national framework.

The award of a Pass is a defined level of performance and cannot be given solely on the basis of a learner completing assignments. Learners who do not satisfy the Pass criteria should be reported as Unclassified.

The assessment team

It is important that there is an effective team for internal assessment. There are three key roles involved in implementing assessment processes in your centre, each with different interrelated responsibilities, the roles are listed below. Full information is given in the *Pearson Quality Assurance Handbook*.

- The Lead Internal Verifier (the Lead IV) has overall responsibility for the programme, its assessment and internal verification to meet our requirements, record keeping and liaison with the Standards Verifier. The Lead IV registers with Pearson annually. The Lead IV acts as an assessor, supports the rest of the assessment team, makes sure that they have the information they need about our assessment requirements and organises training, making use of our guidance and support materials.
- Internal Verifiers (IVs) oversee all assessment activity in consultation with the Lead IV. They check that assignments and assessment decisions are valid and that they meet our requirements. IVs will be standardised by working with the Lead IV. Normally, IVs are also assessors but they do not verify their own assessments.
- Assessors set or use assignments to assess learners to national standards. Before taking any assessment decisions, assessors participate in standardisation activities led by the Lead IV. They work with the Lead IV and IVs to ensure that the assessment is planned and carried out in line with our requirements.

Effective organisation

Internal assessment needs to be well organised so that the progress of learners can be tracked and so that we can monitor that assessment is being carried out in line with national standards. We support you through, for example, providing training materials and sample documentation. Our online myBTEC service can help support you in planning and record keeping. Further information on using myBTEC can be found in *Section 10* and on our website.

It is particularly important that you manage the overall assignment programme and deadlines to make sure that learners are able to complete assignments on time.

Learner preparation

To ensure that you provide effective assessment for your learners, you need to make sure that they understand their responsibilities for assessment and the centre's arrangements.

From induction onwards, you will want to ensure that learners are motivated to work consistently and independently to achieve the requirements of the qualifications. Learners need to understand how assignments are used, the importance of meeting assignment deadlines, and that all the work submitted for assessment must be their own.

You will need to give learners a guide that explains how assignments are used for assessment, how assignments relate to the teaching programme, and how learners should use and reference source materials, including what would constitute plagiarism. The guide should also set out your approach to operating assessment, such as how learners must submit work and request extensions.

Setting effective assignments

Setting the number and structure of assignments

In setting your assignments, you need to work with the structure of assignments shown in the *Essential information for assignments* section of a unit. This shows the structure of the learning aims and criteria that you must follow and the recommended number of assignments that you should use. For some units we provide authorised assignment briefs, for all the units we give you suggestions on how to create suitable assignments. You can find these materials along with this specification on our website. In designing your own assignment briefs you should bear in mind the following points.

- The number of assignments for a unit must not exceed the number shown in *Essential information for assignments*. However, you may choose to combine assignments, for example to create a single assignment for the whole unit.
- You may also choose to combine all or parts of different units into single assignments, provided that all units and all their associated learning aims are fully addressed in the programme overall. If you choose to take this approach, you need to make sure that learners are fully prepared so that they can provide all the required evidence for assessment and that you are able to track achievement in the records.
- A learning aim must always be assessed as a whole and must not be split into two or more tasks.
- The assignment must be targeted to the learning aims but the learning aims and their associated criteria are not tasks in themselves. Criteria are expressed in terms of the outcome shown in the evidence.
- You do not have to follow the order of the learning aims of a unit in setting assignments but later learning aims often require learners to apply the content of earlier learning aims and they may require learners to draw their learning together.
- Assignments must be structured to allow learners to demonstrate the full range of achievement at all grade levels. Learners need to be treated fairly by being given the opportunity to achieve a higher grade if they have the ability.
- As assignments provide a final assessment, they will draw on the specified range of teaching content for the learning aims. The specified content is compulsory. The evidence for assessment need not cover every aspect of the teaching content as learners will normally be given particular examples, case studies or contexts in their assignments. For example, if a learner is carrying out one practical performance, or an investigation of one organisation, then they will address all the relevant range of content that applies in that instance.

Providing an assignment brief

A good assignment brief is one that, through providing challenging and realistic tasks, motivates learners to provide appropriate evidence of what they have learned.

An assignment brief should have:

- a vocational scenario, this could be a simple situation or a full, detailed set of vocational requirements that motivates the learner to apply their learning through the assignment
- clear instructions to the learner about what they are required to do, normally set out through a series of tasks
- an audience or purpose for which the evidence is being provided
- an explanation of how the assignment relates to the unit(s) being assessed.

Forms of evidence

BTEC Nationals have always allowed for a variety of forms of evidence to be used, provided that they are suited to the type of learning aim being assessed. For many units, the practical demonstration of skills is necessary and for others, learners will need to carry out their own research and analysis. The units give you information on what would be suitable forms of evidence to provide learners with the opportunity to apply a range of employability or transferable skills. Centres may choose to use different suitable forms for evidence to those proposed. Overall, learners should be assessed using varied forms of evidence.

Full definitions of types of assessment are given in *Appendix 2*. These are some of the main types of assessment:

- written reports
- projects
- time-constrained practical assessments with observation records and supporting evidence
- recordings of performance
- sketchbooks, working logbooks, reflective journals
- presentations with assessor questioning.

The form(s) of evidence selected must:

- allow the learner to provide all the evidence required for the learning aim(s) and the associated assessment criteria at all grade levels
- allow the learner to produce evidence that is their own independent work
- allow a verifier to independently reassess the learner to check the assessor's decisions.

For example, when you are using performance evidence, you need to think about how supporting evidence can be captured through recordings, photographs or task sheets.

Centres need to take particular care that learners are enabled to produce independent work. For example, if learners are asked to use real examples, then best practice would be to encourage them to use their own or to give the group a number of examples that can be used in varied combinations.

Making valid assessment decisions

Authenticity of learner work

Once an assessment has begun, learners must not be given feedback on progress towards fulfilling the targeted criteria.

An assessor must assess only learner work that is authentic, i.e. learners' own independent work. Learners must authenticate the evidence that they provide for assessment through signing a declaration stating that it is their own work.

Assessors must ensure that evidence is authentic to a learner through setting valid assignments and supervising them during the assessment period. Assessors must take care not to provide direct input, instructions or specific feedback that may compromise authenticity.

Assessors must complete a declaration that:

- the evidence submitted for this assignment is the learner's own
- the learner has clearly referenced any sources used in the work
- they understand that false declaration is a form of malpractice.

Centres can use Pearson templates or their own templates to document authentication.

During assessment, an assessor may suspect that some or all of the evidence from a learner is not authentic. The assessor must then take appropriate action using the centre's policies for malpractice. Further information is given in *Section 7*.

Making assessment decisions using criteria

Assessors make judgements using the criteria. The evidence from a learner can be judged using all the relevant criteria at the same time. The assessor needs to make a judgement against each criterion that evidence is present and sufficiently comprehensive. For example, the inclusion of a concluding section may be insufficient to satisfy a criterion requiring 'evaluation'.

Assessors should use the following information and support in reaching assessment decisions:

- the *Essential information for assessment decisions* section in each unit gives examples and definitions related to terms used in the criteria
- the explanation of key terms in *Appendix 2*
- examples of assessed work provided by Pearson
- your Lead IV and assessment team's collective experience, supported by the standardisation materials we provide.

Pass and Merit criteria relate to individual learning aims. The Distinction criteria as a whole relate to outstanding performance across the unit. Therefore, criteria may relate to more than one learning aim (for example A.D1) or to several learning aims (for example DE.D3). Distinction criteria make sure that learners have shown that they can perform consistently at an outstanding level across the unit and/or that they are able to draw learning together across learning aims.

Dealing with late completion of assignments

Learners must have a clear understanding of the centre policy on completing assignments by the deadlines that you give them. Learners may be given authorised extensions for legitimate reasons, such as illness at the time of submission, in line with your centre policies.

For assessment to be fair, it is important that learners are all assessed in the same way and that some learners are not advantaged by having additional time or the opportunity to learn from others. Therefore, learners who do not complete assignments by your planned deadline or the authorised extension deadline may not have the opportunity to subsequently resubmit.

If you accept a late completion by a learner, then the assignment should be assessed normally when it is submitted using the relevant assessment criteria.

Issuing assessment decisions and feedback

Once the assessment team has completed the assessment process for an assignment, the outcome is a formal assessment decision. This is recorded formally and reported to learners.

The information given to the learner:

- must show the formal decision and how it has been reached, indicating how or where criteria have been met
- may show why attainment against criteria has not been demonstrated
- must not provide feedback on how to improve evidence
- must be validated by an IV before it is given to the learner.

Resubmission of improved evidence

An assignment provides the final assessment for the relevant learning aims and is normally a final assessment decision, except where the Lead IV approves one opportunity to resubmit improved evidence based on the completed assignment brief.

The Lead IV has the responsibility to make sure that resubmission is operated fairly. This means:

- checking that a learner can be reasonably expected to perform better through a second submission, for example that the learner has not performed as expected
- making sure that giving a further opportunity can be done in such a way that it does not give an unfair advantage over other learners, for example through the opportunity to take account of feedback given to other learners
- checking that the assessor considers that the learner will be able to provide improved evidence without further guidance and that the original evidence submitted remains valid.

Once an assessment decision has been given to the learner, the resubmission opportunity must have a deadline within 15 working days in the same academic year.

A resubmission opportunity must not be provided where learners:

- have not completed the assignment by the deadline without the centre's agreement
- have submitted work that is not authentic.

Retake of internal assessment

A learner who has not achieved the level of performance required to pass the relevant learning aims after resubmission of an assignment may be offered a single retake opportunity using a new assignment. The retake may only be achieved at a pass.

The Lead Internal Verifier must only authorise a retake of an assignment in exceptional circumstances where they believe it is necessary, appropriate and fair to do so. For further information on offering a retake opportunity, you should refer to the *BTEC Centre Guide to Assessment*. We provide information on writing assignments for retakes on our website (www.btec.co.uk/keydocuments).

Planning and record keeping

For internal processes to be effective, an assessment team needs to be well organised and keep effective records. The centre will also work closely with us so that we can quality assure that national standards are being satisfied. This process gives stakeholders confidence in the assessment approach.

The Lead IV must have an assessment plan, produced as a spreadsheet or using myBTEC. When producing a plan, the assessment team may wish to consider:

- the time required for training and standardisation of the assessment team
- the time available to undertake teaching and carry out assessment, taking account of when learners may complete external assessments and when quality assurance will take place
- the completion dates for different assignments
- who is acting as IV for each assignment and the date by which the assignment needs to be verified
- setting an approach to sampling assessor decisions through internal verification that covers all assignments, assessors and a range of learners
- how to manage the assessment and verification of learners' work so that they can be given formal decisions promptly
- how resubmission opportunities can be scheduled.

The Lead IV will also maintain records of assessment undertaken. The key records are:

- verification of assignment briefs
- learner authentication declarations
- assessor decisions on assignments, with feedback given to learners
- verification of assessment decisions.

Examples of records and further information are given in the *Pearson Quality Assurance Handbook*.

7 Administrative arrangements

Introduction

This section focuses on the administrative requirements for delivering a BTEC qualification. It will be of value to Quality Nominees, Lead IVs, Programme Leaders and Examinations Officers.

Learner registration and entry

Shortly after learners start the programme of learning, you need to make sure that they are registered for the qualification and that appropriate arrangements are made for internal and external assessment. You need to refer to the *Information Manual* for information on making registrations for the qualification and entries for external assessments.

Learners can be formally assessed only for a qualification on which they are registered. If learners' intended qualifications change, for example if a learner decides to choose a different pathway specialism, then the centre must transfer the learner appropriately.

Access to assessment

Both internal and external assessments need to be administered carefully to ensure that all learners are treated fairly, and that results and certification are issued on time to allow learners to progress to chosen progression opportunities.

Our equality policy requires that all learners should have equal opportunity to access our qualifications and assessments, and that our qualifications are awarded in a way that is fair to every learner. We are committed to making sure that:

- learners with a protected characteristic are not, when they are undertaking one of our qualifications, disadvantaged in comparison to learners who do not share that characteristic
- all learners achieve the recognition they deserve for undertaking a qualification and that this achievement can be compared fairly to the achievement of their peers.

Further information on access arrangements can be found in the Joint Council for Qualifications (JCQ) document *Access Arrangements, Reasonable Adjustments and Special Consideration for General and Vocational Qualifications*.

Administrative arrangements for internal assessment

Records

You are required to retain records of assessment for each learner. Records should include assessments taken, decisions reached and any adjustments or appeals. Further information can be found in the *Information Manual*. We may ask to audit your records so they must be retained as specified.

Reasonable adjustments to assessment

A reasonable adjustment is one that is made before a learner takes an assessment to ensure that they have fair access to demonstrate the requirements of the assessments. You are able to make adjustments to internal assessments to take account of the needs of individual learners. In most cases this can be achieved through a defined time extension or by adjusting the format of evidence. We can advise you if you are uncertain as to whether an adjustment is fair and reasonable. You need to plan for time to make adjustments if necessary.

Further details on how to make adjustments for learners with protected characteristics are given on our website in the document *Supplementary guidance for reasonable adjustment and special consideration in vocational internally-assessed units*.

Special consideration

Special consideration is given after an assessment has taken place for learners who have been affected by adverse circumstances, such as illness. You must operate special consideration in line with our policy (see previous paragraph). You can provide special consideration related to the period of time given for evidence to be provided or for the format of the assessment if it is equally valid. You may not substitute alternative forms of evidence to that required in a unit, or omit the application of any assessment criteria to judge attainment. Pearson can consider applications for special consideration in line with the policy.

Appeals against assessment

Your centre must have a policy for dealing with appeals from learners. These appeals may relate to assessment decisions being incorrect or assessment not being conducted fairly. The first step in such a policy could be a consideration of the evidence by a Lead IV or other member of the programme team. The assessment plan should allow time for potential appeals after assessment decisions have been given to learners. If there is an appeal by a learner, you must document the appeal and its resolution. Learners have a final right of appeal to Pearson but only if the procedures that you have put in place have not been followed. Further details are given in the document *Enquiries and appeals about Pearson vocational qualifications and end point assessment policy*.

Administrative arrangements for external assessment

Entries and resits

For information on the timing of assessment and entries, please refer to the annual examinations timetable on our website.

Access arrangements requests

Access arrangements are agreed with Pearson before an assessment. They allow students with special educational needs, disabilities or temporary injuries to:

- access the assessment
- show what they know and can do without changing the demands of the assessment.

Access arrangements should always be processed at the time of registration. Learners will then know what type of arrangements are available in place for them.

Granting reasonable adjustments

For external assessment, a reasonable adjustment is one that we agree to make for an individual learner. A reasonable adjustment is defined for the individual learner and informed by the list of available access arrangements.

Whether an adjustment will be considered reasonable will depend on a number of factors, to include:

- the needs of the learner with the disability
- the effectiveness of the adjustment
- the cost of the adjustment; and
- the likely impact of the adjustment on the learner with the disability and other learners.

Adjustment may be judged unreasonable and not approved if it involves unreasonable costs, timeframes or affects the integrity of the assessment.

Special consideration requests

Special consideration is an adjustment made to a student's mark or grade after an external assessment to reflect temporary injury, illness or other indisposition at the time of the assessment. An adjustment is made only if the impact on the learner is such that it is reasonably likely to have had a material effect on that learner being able to demonstrate attainment in the assessment.

Centres are required to notify us promptly of any learners who they believe have been adversely affected and request that we give special consideration. Further information can be found in the special requirements section on our website.

Conducting external assessments

Centres must make arrangements for the secure delivery of external assessments. External assessments for BTEC qualifications include examinations, set tasks and performance.

Each external assessment has a defined degree of control under which it must take place. Some external assessments may have more than one part and each part may have a different degree of control. We define degrees of control as follows.

High control

This is the completion of assessment in formal invigilated examination conditions.

Medium control

This is completion of assessment, usually over a longer period of time, which may include a period of controlled conditions. The controlled conditions may allow learners to access resources, prepared notes or the internet to help them complete the task.

Low control

These are activities completed without direct supervision. They may include research, preparation of materials and practice. The materials produced by learners under low control will not be directly assessed.

Further information on responsibilities for conducting external assessment is given in the document *Instructions for Conducting External Assessments*, available on our website.

Dealing with malpractice in assessment

Malpractice means acts that undermine the integrity and validity of assessment, the certification of qualifications, and/or that may damage the authority of those responsible for delivering the assessment and certification.

Pearson does not tolerate actions (or attempted actions) of malpractice by learners, centre staff or centres in connection with Pearson qualifications. Pearson may impose penalties and/or sanctions on learners, centre staff or centres where incidents (or attempted incidents) of malpractice have been proven.

Malpractice may arise or be suspected in relation to any unit or type of assessment within the qualification. For further details regarding malpractice and advice on preventing malpractice by learners, please see Pearson's *Centre guidance: Dealing with malpractice and maladministration in vocational qualifications*, available on our website.

The procedures we ask you to adopt vary between units that are internally-assessed and those that are externally assessed.

Internally-assessed units

Centres are required to take steps to prevent malpractice and to investigate instances of suspected malpractice. Learners must be given information that explains what malpractice is for internal assessment and how suspected incidents will be dealt with by the centre. The *Centre Guidance: Dealing with Malpractice* document gives full information on the actions we expect you to take.

Pearson may conduct investigations if we believe that a centre is failing to conduct internal assessment according to our policies. The above document gives further information, examples and details the penalties and sanctions that may be imposed.

In the interests of learners and centre staff, centres need to respond effectively and openly to all requests relating to an investigation into an incident of suspected malpractice.

Externally-assessed units

External assessment means all aspects of units that are designated as external in this specification, including preparation for tasks and performance. For these assessments, centres must follow the JCQ procedures set out in the latest version of *JCQ Suspected Malpractice in Examinations and Assessments Policies and Procedures* (www.jcq.org.uk).

In the interests of learners and centre staff, centres need to respond effectively and openly to all requests relating to an investigation into an incident of suspected malpractice.

Learner malpractice

Heads of Centres are required to report incidents of any suspected learner malpractice that occur during Pearson external assessments. We ask that centres do so by completing a *JCQ Form M1* (available at www.jcq.org.uk/exams-office/malpractice) and emailing it and any accompanying documents (signed statements from the learner, invigilator, copies of evidence, etc.) to the Investigations Team at candidatemalpractice@pearson.com. The responsibility for determining appropriate sanctions or penalties to be imposed on learners lies with Pearson.

Learners must be informed at the earliest opportunity of the specific allegation and the centre's malpractice policy, including the right of appeal. Learners found guilty of malpractice may be disqualified from the qualification for which they have been entered with Pearson.

Teacher/centre malpractice

Heads of Centres are required to inform Pearson's Investigations Team of any incident of suspected malpractice by centre staff, before any investigation is undertaken. Heads of centres are requested to inform the Investigations Team by submitting a *JCQ Form M2(a)* (available at www.jcq.org.uk/exams-office/malpractice) with supporting documentation to pqsmalpractice@pearson.com. Where Pearson receives allegations of malpractice from other sources (for example Pearson staff or anonymous informants), the Investigations Team will conduct the investigation directly or may ask the head of centre to assist.

Incidents of maladministration (accidental errors in the delivery of Pearson qualifications that may affect the assessment of learners) should also be reported to the Investigations Team using the same method.

Heads of Centres/Principals/Chief Executive Officers or their nominees are required to inform learners and centre staff suspected of malpractice of their responsibilities and rights; see Section 6.15 of the *JCQ Suspected Malpractice in Examinations and Assessments Policies and Procedures* document.

Pearson reserves the right in cases of suspected malpractice to withhold the issuing of results and/or certificates while an investigation is in progress. Depending on the outcome of the investigation results and/or certificates may be released or withheld.

You should be aware that Pearson may need to suspend certification when undertaking investigations, audits and quality assurances processes. You will be notified within a reasonable period of time if this occurs.

Sanctions and appeals

Where malpractice is proven we may impose sanctions or penalties.

Where learner malpractice is evidenced, penalties may be imposed such as:

- mark reduction for external assessments
- disqualification from the qualification
- being barred from registration for Pearson qualifications for a period of time.

If we are concerned about your centre's quality procedures we may impose sanctions such as:

- working with you to create an improvement action plan
- requiring staff members to receive further training
- placing temporary blocks on your certificates
- placing temporary blocks on registration of learners
- debarring staff members or the centre from delivering Pearson qualifications
- suspending or withdrawing centre approval status.

The centre will be notified if any of these apply.

Pearson has established procedures for centres that are considering appeals against penalties and sanctions arising from malpractice. Appeals against a decision made by Pearson will normally be accepted only from Heads of Centres (on behalf of learners and/or members of staff) and from individual members (in respect of a decision taken against them personally). Further information on appeals can be found in our *Enquiries and appeals about Pearson vocational qualifications and end point assessment policy*, which is on our website. In the initial stage of any aspect of malpractice, please notify the Investigations Team by email via pqsmalpractice@pearson.com who will inform you of the next steps.

Certification and results

Once a learner has completed all the required components for a qualification, even if final results for external assessments have not been issued, then the centre can claim certification for the learner, provided that quality assurance has been successfully completed. For the relevant procedures please refer to our *Information Manual*. You can use the information provided on qualification grading to check overall qualification grades.

Results issue

After the external assessment session, learner results will be issued to centres. The result will be in the form of a grade. You should be prepared to discuss performance with learners, making use of the information we provide and post-results services.

Post-assessment services

Once results for external assessments are issued, you may find that the learner has failed to achieve the qualification or to attain an anticipated grade. It is possible to transfer or reopen registration in some circumstances. The *Information Manual* gives further information.

Changes to qualification requests

Where a learner who has taken a qualification wants to resit an externally-assessed unit to improve their qualification grade, you firstly need to decline their overall qualification grade. You may decline the grade before the certificate is issued. For a learner receiving their results in August, you should decline the grade by the end of September if the learner intends to resit an external assessment.

Additional documents to support centre administration

As an approved centre you must ensure that all staff delivering, assessing and administering the qualifications have access to this documentation. These documents are reviewed annually and are reissued if updates are required.

- *Pearson Quality Assurance Handbook*: this sets out how we will carry out quality assurance of standards and how you need to work with us to achieve successful outcomes.
- *Information Manual*: this gives procedures for registering learners for qualifications, transferring registrations, entering for external assessments and claiming certificates.
- *Lead Examiners' Reports*: these are produced after each series for each external assessment and give feedback on the overall performance of learners in response to tasks or questions set.
- *Instructions for the Conduct of External Assessments (ICEA)*: this explains our requirements for the effective administration of external assessments, such as invigilation and submission of materials.
- *Regulatory policies*: our regulatory policies are integral to our approach and explain how we meet internal and regulatory requirements. We review the regulated policies annually to ensure that they remain fit for purpose. Policies related to this qualification include:
 - adjustments for candidates with disabilities and learning difficulties, access arrangements and reasonable adjustments for general and vocational qualifications
 - age of learners
 - centre guidance for dealing with malpractice
 - recognition of prior learning and process.

This list is not exhaustive and a full list of our regulatory policies can be found on our website.

8 Quality assurance

Centre and qualification approval

As part of the approval process, your centre must make sure that the resource requirements listed below are in place before offering the qualification.

- Centres must have appropriate physical resources (for example, equipment, IT, learning materials, teaching rooms) to support the delivery and assessment of the qualification.
- Staff involved in the assessment process must have relevant expertise and/or occupational experience.
- There must be systems in place to ensure continuing professional development for staff delivering the qualification.
- Centres must have in place appropriate health and safety policies relating to the use of equipment by learners.
- Centres must deliver the qualification in accordance with current equality legislation.
- Centres should refer to the teacher guidance section in individual units to check for any specific resources required.

Continuing quality assurance and standards verification

On an annual basis, we produce the *Pearson Quality Assurance Handbook*. It contains detailed guidance on the quality processes required to underpin planning for delivery including appropriate employer involvement, and for robust assessment and internal verification.

The key principles of quality assurance are that:

- a centre delivering BTEC programmes must be an approved centre, and must have approval for the programmes or groups of programmes that it is delivering
- the centre agrees, as part of gaining approval, to abide by specific terms and conditions around the effective delivery and quality assurance of assessment; it must abide by these conditions throughout the period of delivery
- Pearson makes available to approved centres a range of materials and opportunities, through online standardisation, intended to exemplify the processes required for effective assessment, and examples of effective standards. Approved centres must use the materials and services to ensure that all staff delivering BTEC qualifications keep up to date with the guidance on assessment
- an approved centre must follow agreed protocols for standardisation of assessors and verifiers, for the planning, monitoring and recording of assessment processes, and for dealing with special circumstances, appeals and malpractice.

The approach of quality-assured assessment is through a partnership between an approved centre and Pearson. We will make sure that each centre follows best practice and employs appropriate technology to support quality-assurance processes, where practicable. We work to support centres and seek to make sure that our quality-assurance processes do not place undue bureaucratic processes on centres. We monitor and support centres in the effective operation of assessment and quality assurance.

The methods we use to do this for BTEC Level 3 include:

- making sure that all centres complete appropriate declarations at the time of approval
- undertaking approval visits to centres
- making sure that centres have effective teams of assessors and verifiers who are trained to undertake assessment
- undertaking an overarching review and assessment of a centre's strategy for ensuring sufficient and appropriate engagement with employers at the beginning of delivery of any BTEC programme(s)
- undertaking a review of the employer involvement planned at programme level to ensure its appropriateness at a time when additional activities can be scheduled where necessary
- assessment sampling and verification, through requested samples of assessments, completed assessed learner work and associated documentation

- an overarching review and assessment of a centre's strategy for delivering and quality assuring its BTEC programmes, for example making sure that synoptic units are placed appropriately in the order of delivery of the programme.

Centres that do not fully address and maintain rigorous approaches to delivering, assessing and quality assurance cannot seek certification for individual programmes or for all BTEC Level 3 programmes. An approved centre must make certification claims only when authorised by us and strictly in accordance with requirements for reporting.

Centres that do not comply with remedial action plans may have their approval to deliver qualifications removed.

9 Understanding the qualification grade

Awarding and reporting for the qualification

This section explains the rules that we apply in awarding a qualification and in providing an overall qualification grade for each learner. It shows how all the qualifications in this sector are graded.

The awarding and certification of these qualifications will comply with regulatory requirements.

Eligibility for an award

In order to be awarded a qualification, a learner must complete all units, achieve a Near Pass (N) or above in all external units and a pass or above in all mandatory units unless otherwise specified. Refer to the structure in *Section 2*.

To achieve any qualification grade, learners must:

- complete and **have an outcome** (D, M, P, N or U) for all units within a valid combination
- achieve the **required units at pass or above** shown in *Section 2*, and for the Diploma achieve a minimum of 600 GLH and Extended Diploma achieve a minimum 900 GLH at Pass or above (or N or above in external units)
- achieve the **minimum number of points** at a grade threshold.

It is the responsibility of a centre to ensure that a correct unit combination is adhered to. Learners who do not achieve the required minimum grade (N or P) in units shown in the structure will not achieve a qualification.

Learners who do not achieve sufficient points for a qualification or who do not achieve all the required units may be eligible to achieve a smaller qualification in the same suite provided they have completed and achieved the correct combination of units and met the appropriate qualification grade points threshold.

Calculation of the qualification grade

The final grade awarded for a qualification represents an aggregation of a learner's performance across the qualification. As the qualification grade is an aggregate of the total performance, there is some element of compensation in that a higher performance in some units may be balanced by a lower outcome in others.

In the event that a learner achieves more than the required number of optional units, the mandatory units along with the optional units with the highest grades will be used to calculate the overall result, subject to the eligibility requirements for that particular qualification title.

BTEC Nationals are Level 3 qualifications and are awarded at the grade ranges shown in the table below.

Qualification	Available grade range
Certificate, Extended Certificate, Foundation Diploma	P to D*
Diploma	PP to D*D*
Extended Diploma	PPP to D*D*D*

The *Calculation of qualification grade* table, shown further on in this section, shows the minimum thresholds for calculating these grades. The table will be kept under review over the lifetime of the qualification. The most up to date table will be issued on our website.

Pearson will monitor the qualification standard and reserves the right to make appropriate adjustments.

Learners who do not meet the minimum requirements for a qualification grade to be awarded will be recorded as Unclassified (U) and will not be certificated. They may receive a Notification of Performance for individual units. The *Information Manual* gives full information.

Points available for internal units

The table below shows the number of **points** available for internal units. For each internal unit, points are allocated depending on the grade awarded.

	Unit size	
	60 GLH	
U	0	
Pass	6	
Merit	10	
Distinction	16	

Points available for external units

Raw marks from the external units will be awarded **points** based on performance in the assessment. The table below shows the **minimum number of points** available for each grade in the external units.

	Unit size	
	90 GLH	120 GLH
U	0	0
Near Pass	6	8
Pass	9	12
Merit	15	20
Distinction	24	32

Pearson will automatically calculate the points for each external unit once the external assessment has been marked and grade boundaries have been set. For more details about how we set grade boundaries in the external assessment please go to our website.

Claiming the qualification grade

Subject to eligibility, Pearson will automatically calculate the qualification grade for your learners when the internal unit grades are submitted and the qualification claim is made. Learners will be awarded qualification grades for achieving the sufficient number of points within the ranges shown in the relevant *Calculation of qualification grade* table for the cohort.

Calculation of qualification grade

Applicable for registration from 1 September 2018.

Extended Certificate		Foundation Diploma		Diploma		Extended Diploma	
360 GLH		540 GLH		720 GLH		1080 GLH	
Grade	Points threshold	Grade	Points threshold	Grade	Points threshold	Grade	Points threshold
U	0	U	0	U	0	U	0
P	36	P	54	PP	72	PPP	108
				MP	88	MPP	124
						MMP	140
M	52	M	78	MM	104	MMM	156
				DM	124	DMM	176
						DDM	196
D	74	D	108	DD	144	DDD	216
				D*D	162	D*DD	234
						D*D*D	252
D*	90	D*	138	D*D*	180	D*D*D*	270

The table is subject to review over the lifetime of the qualification. The most up-to-date version will be issued on our website.

Examples of grade calculations based on table applicable to registrations from September 2018

Example 1: Achievement of an Extended Diploma with a PPP grade

	GLH	Type (Int/Ext)	Grade	Unit points
Unit 1	120	Ext	Pass	12
Unit 2	120	Ext	Pass	12
Unit 3	120	Ext	Pass	12
Unit 4	60	Int	Merit	10
Unit 5	60	Int	Pass	6
Unit 6	60	Int	Pass	6
Unit 7	60	Int	Merit	10
Unit 8	60	Int	U	0
Unit 9	60	Int	Pass	6
Unit 10	60	Int	Merit	10
Unit 11	60	Int	Pass	6
Unit 12	60	Int	Pass	6
Unit 13	60	Int	Pass	6
Unit 14	60	Int	Pass	6
Unit 15	60	Int	Pass	6
Totals	1080		PPP	114

The learner has achieved N or higher in Units 1, 2 and 3 and P or higher in Units 5 and 6.

The learner has sufficient points for a PPP grade.

Example 2: Achievement of an Extended Diploma with a DDD grade

	GLH	Type (Int/Ext)	Grade	Unit points
Unit 1	120	Ext	Near Pass	8
Unit 2	120	Ext	Distinction	32
Unit 3	120	Ext	Distinction	32
Unit 4	60	Int	Distinction	16
Unit 5	60	Int	Distinction	16
Unit 6	60	Int	Distinction	16
Unit 7	60	Int	Merit	10
Unit 8	60	Int	Distinction	16
Unit 9	60	Int	Distinction	16
Unit 10	60	Int	Merit	10
Unit 11	60	Int	Merit	10
Unit 12	60	Int	Distinction	16
Unit 13	60	Int	Merit	10
Unit 14	60	Int	Merit	10
Unit 15	60	Int	Pass	6
Totals	1080		DDD	224

The learner has sufficient points for a DDD grade.

Example 3: An Unclassified result for an Extended Diploma

	GLH	Type (Int/Ext)	Grade	Unit points
Unit 1	120	Ext	Merit	20
Unit 2	120	Ext	Merit	20
Unit 3	120	Ext	Pass	12
Unit 4	60	Int	Merit	10
Unit 5	60	Int	Pass	6
Unit 6	60	Int	Merit	10
Unit 7	60	Int	Distinction	16
Unit 8	60	Int	Merit	10
Unit 9	60	Int	Unclassified	0
Unit 10	60	Int	Merit	10
Unit 11	60	Int	Unclassified	0
Unit 12	60	Int	Unclassified	0
Unit 13	60	Int	Unclassified	0
Unit 14	60	Int	Merit	10
Unit 15	60	Int	Pass	6
Totals	1080		U	130

The learner has 240 GLH at U.

The learner has sufficient points for an MPP and has achieved N or higher in Units 1, 2 and 3 and P or higher in Units 5 and 6 but has not met the minimum requirement for 900 GLH at Pass or above.

10 Resources and support

Our aim is to give you a wealth of resources and support to enable you to deliver BTEC National qualifications with confidence. On our website you will find a list of resources to support teaching and learning, and professional development.

Support for setting up your course and preparing to teach

Specification

This **specification** (for teaching from September 2018) includes details on the administration of qualifications and information on all the units for the qualification.

Delivery Guide

This free guide gives you important advice on how to choose the right course for your learners and how to ensure you are fully prepared to deliver the course. It explains the key features of BTEC Nationals (for example employer involvement and employability skills). It also covers guidance on assessment (internal and external) and quality assurance. The guide tells you where you can find further support and gives detailed unit-by-unit delivery guidance. It includes teaching tips and ideas, assessment preparation and suggestions for further resources.

Schemes of work

Free sample schemes of work are provided for each mandatory unit. These are available in Word™ format for ease of customisation.

Curriculum models

These show how the BTECs in the suite fit into a 16–19 study programme, depending on their size and purpose. The models also show where other parts of the programme, such as work experience, maths and English, tutorial time and wider study, fit alongside the programme.

Study skills activities

A range of case studies and activities is provided; they are designed to help learners develop the study skills they need to successfully complete their BTEC course. The case studies and activities are provided in Word™ format for easy customisation.

myBTEC

myBTEC is a free, online toolkit that lets you plan and manage your BTEC provision from one place. It supports the delivery, assessment and quality assurance of BTECs in centres and supports teachers with the following activities:

- checking that a programme is using a valid combination of units
- creating and verifying assignment briefs (including access to a bank of authorised assignment briefs that can be customised)
- creating assessment plans and recording assessment decisions
- tracking the progress of every learner throughout their programme.

To find out more about myBTEC, visit the myBTEC page on the support services section of our website. We will add the new BTEC National specifications to myBTEC as soon as possible.

Support for teaching and learning

Pearson Learning Services provides a range of engaging resources to support BTEC Nationals, including:

- textbooks in e-book and print formats
- revision guides and revision workbooks in e-book and print formats
- teaching and assessment packs, including e-learning materials via the Active Learn Digital Service.

Teaching and learning resources are also available from a number of other publishers. Details of Pearson's own resources and of all endorsed resources can be found on our website.

Support for assessment

Sample assessment materials for externally-assessed units

Sample assessments are available for the Pearson-set units. One copy of each of these assessments can be downloaded from the website/available in print. For each suite an additional sample for one of the Pearson-set units is also available, allowing your learners further opportunities for practice.

Further sample assessments will be made available through our website on an ongoing basis.

Sample assessment materials for internally-assessed units

We do not prescribe the assessments for the internally-assessed units. Rather, we allow you to set your own, according to your learners' preferences and to link with your local employment profile.

We do provide a service in the form of Authorised Assignment Briefs, which are approved by Pearson Standards Verifiers. They are available via our website or free on myBTEC.

Sample marked learner work

To support you in understanding the expectation of the standard at each grade, examples of marked learner work at PM/MD grades are linked to the Authorised Assignment Briefs.

Training and support from Pearson

People to talk to

There are many people who are available to support you and provide advice and guidance on delivery of your BTEC Nationals. These include:

- Subject Advisors – available for all sectors. They understand all Pearson qualifications in their sector and so can answer sector-specific queries on planning, teaching, learning and assessment
- Standards Verifiers – they can support you with preparing your assignments, ensuring that your assessment plan is set up correctly, and support you in preparing learner work and providing quality assurance through sampling
- Curriculum Development Managers (CDMs) – they are regionally based and have a full overview of the BTEC qualifications and of the support and resources that Pearson provides. CDMs often run network events
- Customer Services – the 'Support for You' section of our website gives the different ways in which you can contact us for general queries. For specific queries, our service operators can direct you to the relevant person or department.

Training and professional development

Pearson provides a range of training and professional development events to support the introduction, delivery, assessment and administration of BTEC National qualifications. These sector-specific events, developed and delivered by specialists, are available both face to face and online.

'Getting Ready to Teach'

These events are designed to get teachers ready for delivery of the BTEC Nationals. They include an overview of the qualifications' structures, planning and preparation for internal and external assessment, and quality assurance.

Teaching and learning

Beyond the 'Getting Ready to Teach' professional development events, there are opportunities for teachers to attend sector- and role-specific events. These events are designed to connect practice to theory; they provide teacher support and networking opportunities with delivery, learning and assessment methodology.

Details of our training and professional development programme can be found on our website.

Appendix 1 Links to industry standards

BTEC Nationals have been developed in consultation with industry and appropriate sector bodies to ensure that the qualification content and approach to assessment aligns closely to the needs of employers. Where they exist, and are appropriate, National Occupational Standards (NOS) and professional body standards have been used to establish unit content.

In the equine management sector, the following approach has been used.

- The mandatory content has been mapped to NOS to reflect the essential skills and knowledge needed for entry to employment.

Appendix 2 Glossary of terms used for internally-assessed units

This is a summary of the key terms used to define the requirements in the units.

Term	Definition
Carry out	Learners demonstrate skills through practical activities, in line with certain requirements. Learners do this in order to complete an identified activity or to demonstrate personal achievement for an audience.
Develop	Learners acquire and apply skills and understanding through practical activities that involve the use of concepts, processes or techniques to expand or progress something.
Examine	Learners select and apply knowledge to less familiar contexts.
Explore	Learners apply their skills and/or knowledge in contexts involving practical research or investigation.
Investigate	Learners' application of knowledge is based on personal research and development.
Review	Learners make a formal assessment of work produced. The assessment allows learners to appraise existing information or prior events, and reconsider information with the intention of making changes, if necessary.
Understand	Learners demonstrate knowledge related to defined situations.
Undertake	Learners demonstrate skills through practical activities, often referring to given processes or techniques.
Analyse	Learners present the outcome of methodical and detailed examination, either: <ul style="list-style-type: none"> • breaking down a theme, topic or situation in order to interpret and study the interrelationships between the parts and/or • of information or data to interpret and study key trends and interrelationships. Analysis can be through performance, practice, written or, less commonly, verbal presentation.
Assess	Learners present a careful consideration of varied factors or events that apply to a specific situation or, to identify those which are the most important or relevant and arrive at a conclusion.

Term	Definition
Compare	Learners identify the main factors relating to two or more items/situations or aspects of a subject that is extended to explain the similarities, differences, advantages and disadvantages. This is used to show depth of knowledge through selection and isolation of characteristics.
Demonstrate	Learners' work, performance or practice evidences the ability to carry out and apply knowledge, understanding and/or skills in a practical situation.
Discuss	Learners consider different aspects of: <ul style="list-style-type: none"> • a theme or topic; • how they interrelate; and • the extent to which they are important. A conclusion is not required.
Explain	Learners' work shows clear detail and gives reasons and/or evidence to support an opinion, view or argument. It could show how conclusions are drawn (arrived at). Learners show that they comprehend the origins, functions and objectives of a subject, and its suitability for purpose.
Evaluate	Learners' work draws on varied information, themes or concepts to consider aspects such as: <ul style="list-style-type: none"> • strengths or weaknesses • advantages or disadvantages • alternative actions • relevance or significance. Learners' inquiries should lead to a supported judgement showing relationship to its context. This will often be in a conclusion. Evidence of explanations could be through visual explanations with annotations, as well as written work, presentation, performance or practice.
Justify	Learners give reasons or evidence to: <ul style="list-style-type: none"> • support an opinion • prove something right or reasonable.
Perform	Learners demonstrate a range of skills required to complete a given activity.
Plan	Learners create a way of doing a task or series of tasks to achieve specific requirements or objectives, showing progress from start to finish.

Term	Definition
Reflect	Learners consider their own performance and/or skills and development in relation to a specific scenario or scenarios and/or wider context(s). This may include feedback from others. There is often a requirement for learners to identify strengths and areas for improvement, along with a personal development or action plan.
Select	Learners choose the best or most suitable option, whether this is of materials, techniques, equipment or processes. The options and choices should be based on specific criteria.

This is a key summary of the types of evidence used for BTEC Nationals.

Type of evidence	Definition and purpose
Case study	A specific example to which all learners must select and apply knowledge. Used to show application to a realistic context where direct experience cannot be gained.
Development log	A record kept by learners to show the process of development. Used to show method, self-management and skill development.
Individual project	A self-directed, large-scale activity requiring planning, research, exploration, outcome and review. Used to show self-management, project management and/or deep learning, including synopticity.
Log	A record made by learners of how a process of development was carried out, including experimental stages, testing, selection and rejection of alternatives, practice or development steps.
Plan	Learners produce a plan as an outcome related to a given or limited task.
Project	A large-scale activity requiring planning, research, exploration, outcome and review. Used to show self-management, project management and/or deep learning, including synopticity.
Presentation	To show presentation skills, including communication. To direct to a given audience and goal. To extract and summarise information.
Portfolio	Digital or physical showing a selection of work that contributes towards a project or for a specific purpose.
Practical task (artefact/outcome)	Learners carry out a defined or self-defined task to produce an outcome.
Research	An analysis of substantive research organised by learners from secondary and, if applicable, primary sources.
Written task/report	Individual completion of a task in a work-related format, e.g. a report, marketing communication, set of instructions.

Pearson BTEC Level 3 Nationals in Equine Management

Extended Certificate in Equine Management

Foundation Diploma in Equine Management

Diplomas in:

Equine Management (Yard Management)

Equine Management (Equitation)

Extended Diploma in Equine Management

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