

Unit 9: Understand the Principles of Horse Behaviour and Welfare

Unit code:	L/601/0320
QCF Level 3:	BTEC National
Credit value:	10
Guided learning hours:	60

● Aim and purpose

This unit aims to provide learners with an understanding of the principles of horse behaviour and welfare. This unit is primarily aimed at learners within a centre-based setting looking to progress into the sector or further education and training.

● Unit introduction

Awareness of the importance of horse behaviour has continued to develop in the equine industry. The increased interest in alternative approaches to handling and training horses has highlighted the critical need for those working in the sector to have a thorough understanding of natural horse behaviour. This has brought about changes in attitudes towards the methods of keeping and managing horses in domestication.

This unit focuses on developing knowledge and understanding of horse behaviour and welfare of horses, through learners investigating natural behaviour and lifestyles resulting from the evolutionary process, and comparing this to the typical, traditional domesticated scenario. Learners will analyse the associated effects of domestication, including stereotypic behaviours. Alternative contemporary methods of managing and keeping horses are reviewed and the role these methods might play within different realistic scenarios is evaluated.

Learners will have the opportunity, through practical behavioural observation studies, to analyse horse behaviour in domesticated scenarios. Learners will become familiar with the carrying out further small research tasks and with methods of recording data and analysing findings. The unit will encompass both stable kept and grass kept horses, focusing mainly on the effects of routines and human interaction on horses.

● Learning outcomes

On completion of this unit a learner should:

- 1 Understand the natural behaviour of the horse
- 2 Understand the implications of domestication on the lifestyle and behaviour of the horse
- 3 Be able to monitor and record the effects of routines on the behaviour of horses
- 4 Know how to promote the welfare of horses.

Unit content

1 Understand the natural behaviour of the horse

Evolution: anatomical and physiological adaptations eg hoof, limb, speed, digestive system, dentition, diet, eye position, height

Five animal senses: sight, hearing, smell, taste, touch; influence and effects on behaviour eg defence against predators, role in social interaction, role in development to maturity

Communication methods: body language eg body outline, tail position, ear position, mouth, nose, head movements, aggressive and defensive threats; vocal communication eg neighing, snorting, squealing, high-blowing, nickering; individuality and recognition

Natural lifestyle: herd animals, herd structure, social interaction; fight or flight instinct; diet, eating behaviour; reproduction, time budgets

2 Understand the impact of domestication on the lifestyle and behaviour of the horse

Traditional intensive management practices: eg stabling, isolation, restricted range and quantity of dietary roughage, concentrate feeds; handling and training methods; segregation (age, gender); bonding/family ties, weaning; reproduction, stallions/geldings

Effects of traditional intensive management: eg anxiety, fear, boredom, time and budgets, nutritional disorders, aggression, coping strategies, withdrawal, handling/training problems, wastage, herd discipline and communication

Stereotypic behaviours: types; causes (anxiety, stress, boredom); replacement activities; coping strategies; heritability; observational learning

Alternative management methods: eg group housing, turn out, feeding (proportion and range of roughage), bare foot, equipment (treeless saddles, bitless bridles), training methods (equitation science, intelligent and natural horsemanship)

Scenarios: commercial (eg riding schools, race yards, competition yards, studs, livery yards); private

3 Be able to monitor and record the effects of routines on the behaviour of horses

Effects of routines: stabled, grass kept; time and budgets; range of behaviours exhibited

Monitoring behaviour, recording and analysing findings: eg ethograms, methods of observing behaviour and gathering data (video, real time, software packages, scan sampling, numbers in sample), methods of presenting data (graphs, charts), research reports (eg abstract, introduction, methods, results, and discussion/conclusion); health and safety

Changes in behaviour: eg aggression, threats, anxiety, agitation, stress symptoms, excitement, focus of attention, response to handler, learned behaviours.

Scenarios: eg feeding times, grooming, tacking up, applying clothing, mounting, travelling, isolation, introduction of new horses, handling, training, change of handler, reproductive status, group housing

4 Know how to promote the welfare of horses

Equine welfare: five needs; current issues; organisations relevant to the welfare of horses in the UK (role, importance)

Assessment and grading criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
P1 discuss the anatomical and physiological adaptations of the horse as a result of evolution [SM]		
P2 explain the significance of the five animal senses and the influence and effects on the behaviour of horses [SM]		
P3 analyse the body language and communication methods used by horses [SM]	M1 examine, in depth, the natural lifestyle of horses	D1 analyse the link between natural behaviour and lifestyle of horses
P4 examine traditional intensive management practices of keeping horses [SM]		
P5 analyse the effects of traditional intensive management on the lifestyle and behaviour of the domestic horse [IE, SM]	M2 review alternative contemporary methods of managing and keeping horses	D2 evaluate the role of alternative contemporary methods of managing and keeping horses for different scenarios
P6 evaluate the causes and management of stereotypic behaviours in the domestic horse [IE, SM]	M3 review traditional and contemporary methods of managing and preventing stereotypic behaviours	D3 evaluate the role of traditional and contemporary methods of managing and preventing stereotypic behaviours.
P7 monitor and record the effects of routines on the stabled and grass kept horse [IE, TW, SM, EP]		

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
P8 monitor and record the effects of environmental conditions on the stabled and horse kept at grass [IE, TW, SM, EP]		
P9 analyse the findings of monitoring activity [IE, TW, SM, EP]	M4 discuss scenarios where changes in horse behaviour are likely to occur in the short and long term.	
P10 describe the issues surrounding equine welfare in relation to the five animal freedoms		
P11 outline the importance of the main equine welfare organisations.		

PLTS: This summary references where applicable in the pass criteria, in the square brackets, the elements of the personal, learning and thinking skills. It identifies opportunities for learners to demonstrate effective application of the referenced elements of the skills.

Key	IE – independent enquirers CT – creative thinkers	RL – reflective learners TW – team workers	SM – self-managers EP – effective participators
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Essential guidance for tutors

Delivery

Delivery of this unit will involve practical assessments, written assessment, visits to suitable collections and will link to work experience placements.

In order to study this unit, learners should be able to observe and handle horses in a variety of scenarios. Centres are encouraged to manage their horses in a way that allows the expression of natural behaviours wherever possible.

This unit has been developed to give learners an understanding of the critical importance of horse behaviour and welfare and to encourage them to use this understanding to underpin and inform all other areas.

Visits to museums with equidae fossils could reinforce formal lectures on and research into evolution and adaptations. Time spent developing their understanding of how and why the horse evolved should make learners better able to understand the horses they deal with.

Natural behaviour, use of the senses and communication methods should draw on video footage, formal lectures, discussion and research tasks, together with practical behavioural observations in a range of scenarios. Practical observation of behaviour links to learning outcome 3.

Traditional intensive management practices must be identified and their effects understood, this can be delivered through yard visits, work experience, formal lectures, discussion and research tasks, and practical behavioural observations. The study of alternative management methods would also benefit from all of the above, together with guest speakers or demonstrations. Ideally, learners should have the opportunity to witness the use of alternative methods, such as group housing, to enable effective evaluation.

Learners will be asked to spend adequate time practically observing equine behaviour through a combination of work placements and practical behavioural observations. Behaviour during routine activities, as well as in a range, of other scenarios, should be monitored. Appropriate methods of monitoring and recording behaviour and analysing findings must be developed, with learners producing a mini research report. This not only helps learner understanding of behaviour and management, linking to learning outcomes 1 and 2, but also serves as an introduction to collating primary data. Health and safety, for example through the correct use of personal protective equipment (PPE), must be considered at all times.

Learner understanding of horse welfare will be enhanced by visits to equine rescue centres and listening to guest speakers from welfare agencies. Learners should consider the practical implementation of welfare to inform their understanding of effective management practices, linking to learning outcome 2.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan gives **an indication of the volume of learning it would take the average learner** to achieve the learning outcomes. It is **indicative and is one way of achieving the credit value**.

Learning time should address all learning (including assessment) relevant to the learning outcomes, regardless of where, when and how the learning has taken place.

Topic and suggested assignments/activities and/assessment

Introduction and overview of the unit.

Assignment 1: Horse Behaviour (P1, P2, P3, M1, D1, P7, P8, P9, M4). Tutor introduces the assignment

Theory session: anatomical and physiological adaptations of the horse through evolution.

Discuss natural lifestyle, behaviour, the senses body language and communication.

Introduce domestic behaviour and changes in behaviour (short and long term, incidental and intentional).

Theory session: methods of monitoring, recording and analysing behaviour. Review journal articles. Design a practical behavioural observation study.

Practical behavioural observation studies in a range of scenarios.

Undertake review of success of observational studies. Write up results.

Assignment 2: Horse Domestication (P4, P5, P6, M2, M3, D2, D3).

Tutor introduces the assignment

Discuss traditional intensive management practices and analyse the effects on horse lifestyle and behaviour.

Alternative contemporary methods of managing and keeping horses.

Introduce stereotypic behaviours: causes, management and prevention. Include time for learner research and presentations.

Assignment 3: Horse Welfare (P10, P11). Tutor introduces the assignment

Discuss issues of equine welfare and link to the five freedoms. Practical methods of promoting welfare.

Introduce welfare charities. Include time for a guest speaker and/or educational visit.

Ethics of horse use. Include time for learner presentations.

Unit review.

Assessment

For P1, learners must discuss the evolutionary adaptations that have occurred in the anatomy and physiology of horses, linking this to environmental conditions. They will explain what makes a horse best able to thrive in natural conditions and why.

P2 and P3 build on P1, as learners need to explain the natural behaviour of the horse, which is intertwined with its physical adaptations to the environment. The discussion of behaviour must focus on the role of the senses and on body language and communication among horses.

For P4, learners must examine traditional intensive management practices of keeping horses, explaining what these practices are and how they compare to the natural lifestyle of horses. For P5, the effects of these practices on both the lifestyle and behaviour of domestic horses must be analysed.

For P6, a range of potential causes of stereotypic behaviours must be evaluated, together with how these are managed. This could be related to specific examples of stereotypic behaviours.

For P7, P8 and P9, learners must complete a series of practical sessions observing horse behaviour and the effects of routines in different scenarios. Appropriate methods of recording observed behaviour must be formulated. For P9, the findings of the monitoring must be analysed, through discussion of the range and frequency of behaviours observed. Learners should aim to produce a mini research report.

For P10 and P11, learners need to provide information on the promotion of horse welfare. This could be linked to assessment for other criteria or through an assignment or presentation.

For M1, learners must examine the natural lifestyle of horses in depth. They will look at what the life of a horse consists of and how they spend their time.

For M2, learners must review a range of alternative contemporary methods of managing and keeping horses, describing what they are and how they are carried out. This can relate not only to care management, but also to handling and training.

For M3, learners must review a range of traditional and contemporary methods of managing and preventing stereotypic behaviours, describing what they are and how they are carried out.

For M4, learners must discuss a range of scenarios where horse behaviour is likely to change (both short-and long-term changes). The likely behavioural changes must be explained, together with how they relate to the scenarios.

For D1, learners must draw on P1, P2, P3 and M1 to analyse the interrelationship between natural behaviour and lifestyle, investigating the effect of lifestyle on behaviour and vice versa.

D2 should build on M2, to include an evaluation of the role of alternative contemporary methods of managing and keeping horses, considering how effective and/or beneficial they are. Learners should consider whether they have a place in current horse management by relating them to different scenarios.

D3 should build on M3, to include an evaluation of the role of a range of traditional and contemporary methods of managing and preventing stereotypic behaviours, considering how effective they are and whether they have a place in current horse management.

Programme of suggested assignments

The following table shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
P1, P2, P3, M1, D1, P7, P8, P9, M4	Horse Behaviour	Discuss the evolutionary adaptations of the horse. Explain natural horse behaviour, giving examples of how the senses, body language and methods of communication are used. Examine the natural horse lifestyle. Carry out a range of practical observations of horse behaviour. Record the behaviour observed. Produce a mini research report analysing findings.	Written evidence. Practical behaviour observations and research report.
P4, P5, P6, M2, M3, D2, D3	Horse Domestication	Identify traditional intensive practices and their effects on behaviour and lifestyle. Compare these to natural lifestyle. Review and evaluate alternative contemporary methods. Evaluate causes and methods of managing and preventing stereotypic behaviours.	Written evidence.
P10, P11	Horse Welfare	Produce a summary of welfare issues and practical methods for promoting welfare. Give a presentation/take part in a debate on welfare ethics related to horse use.	Written evidence. Presentation/debate.

Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC Land-based sector suite. This unit has particular links with:

Level 2	Level 3
Maintain Animal Health and Welfare	Plan and Monitor Animal Feeding
	Understand Animal Anatomy and Physiology

Essential resources

Learners will need access to a range of horses in a variety of scenarios, as well as to a range of library material and internet access.

Employer engagement and vocational contexts

Centres are encouraged to create and develop links with equine welfare organisations and a range of equine establishments and practitioners. This could be via guest lectures, workshops, demonstrations, work placements or visits to see a range of practices in action.

Indicative reading for learners

Textbooks

Allison K – *The holistic management of horses* (J A Allen, 1999) ISBN 0851316239

Budd J – *A-Z of Horse Behaviour and Training* (Howell Books, 2000) ISBN 0764561111

Budiansky S – *The Nature of Horses: Their Evolution, Intelligence and Behaviour* (Phoenix Press, 1998) ISBN 0753801124

Fraser A – *The Behaviour of the Horse* (CABI Publishing, 1992) ISBN 0851987850

Henry L – *Think like a pony: Foundation book* (Kenilworth Press, 2007) ISBN 1905693095

Kiley-Worthington M – *Equine Welfare* (J A Allen, 1997) ISBN 0851317049

Kiley-Worthington M – *The Behaviour of Horses in Relation to Management and Training* (J A Allen, 1997) ISBN 0851316883

Lawrence A and Rushen J – *Stereotypic Animal Behaviour: Fundamentals and Applications to Welfare* (CABI Publishing, 1993) ISBN 0851988245

McBane S – *Behaviour Problems in Horses* (David & Charles Ltd, 1994) ISBN 0715302620

McBane S – *Understanding Your Horse* (Cassell Illustrated, 1992) ISBN 0706369769

McDonnell S – *Understanding Horse Behaviour* (Eclipse Press, 1999) ISBN 1581500173

Mills D and McDonnell SM – *The Domestic Horse: The origins, development and management of its behaviour* (Cambridge University Press, 2005) ISBN 0521891132

Mills D and Nankervis K – *Equine Behaviour: Principles and Practice* (Blackwell Science, 1998) ISBN 0632048786

Paterson D and Palmer M – *The Status of Animals: Ethics, Education and Welfare* (CABI Publishing, 1998) ISBN 0851986501

Waren N – *The Welfare of Horses* (Kluwer Academic Publishers, 2002) ISBN 1 402007663

Zeitler-Feicht M – *Equine Handbook of Horse Behaviour: Diagnosis, Treatment and Problem-Solving* (Manson Publishing, 2004) ISBN 1 840760370

Magazines

Equus

Horse and Hound

Horse and Rider

Your Horse

Websites

www.defra.gov.uk/t

Department for the Environment, Food and Rural Affairs

www.nhm.ac.uk/

Natural History Museum

www.newc.co.uk/home/

National Equine Welfare Council

www.rspca.org.uk/home

Royal Society for the Prevention of Cruelty to Animals

www.worldhorsewelfare.org/

World Horse Welfare

Delivery of personal, learning and thinking skills (PLTS)

The following table identifies the PLTS opportunities that have been included within the assessment criteria of this unit:

Skill	When learners are ...
Independent enquirers	analysing effects of intensive management evaluating causes of stereotypic behaviours planning and carrying out behavioural observations analysing findings of behavioural observations
Reflective learners	critiquing methods used for behavioural observations and reports
Team workers	carrying out practical behavioural observations
Self-managers	completing all work for assessment
Effective participators	participating in practical behavioural observations.

Although PLTS opportunities are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

Skill	When learners are ...
Independent enquirers	researching evolution and horse behaviour researching management practices investigating horse welfare issues.

● Functional Skills – Level 2

Skill	When learners are ...
ICT – Find and select information	
Select and use a variety of sources of information independently for a complex task	<p>using the internet to research appropriate information on horse evolution and behaviour</p> <p>using the internet to research appropriate information on management practices</p> <p>using the internet to research appropriate information on horse welfare</p>
ICT – Develop, present and communicate information	
<p>Enter, develop and format information independently to suit its meaning and purpose including:</p> <ul style="list-style-type: none"> • text and tables • images • numbers • records. 	<p>producing written assignments using ICT programmes</p> <p>producing a record and analysis of practical behavioural observations</p>
Bring together information to suit content and purpose	producing an analysis of practical behavioural observations
Present information in ways that are fit for purpose and audience	producing a record and analysis of practical behavioural observations
Mathematics	
Interpret and communicate solutions to practical problems in familiar and unfamiliar routine contexts and situations	producing results and an analysis of practical behavioural observations
English	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	participating in a debate
Reading – compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions	reading and utilising a range of research
Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively	completing the range of written assignment work.