

Unit 4: Plan and Monitor Animal Feeding

Unit code:	T/600/9372
QCF Level 3:	BTEC National
Credit value:	5
Guided learning hours:	30

● Aim and purpose

This unit aims to provide learners with an understanding of the principles of animal feeding and how these can be applied in practice. This unit is primarily aimed at learners within a centre-based setting looking to progress into the sector or further education and training.

Learners will be able to describe the requirements for a balanced animal diet, provide the appropriate food to animals and monitor and record the effects of feeding and watering animals. Learners will understand how different feeding and watering regimes affect animals.

● Unit introduction

Feeding animals is a vital husbandry skill when caring for all types of animals. Learners will develop the skills needed to provide food to animals safely, in a way that adheres to animal welfare and health and safety requirements, and to plan and monitor animal feeding regimes.

With animal nutrition being at the forefront of media concerns over welfare, for example issues such as obesity, it is very important for those working in the animal care industry to know the correct way to feed a variety of animals.

This unit relates to working with all different species of animals, from companion animals and pets, to zoo animals and wildlife.

● Learning outcomes

On completion of this unit a learner should:

- 1 Be able to plan diets and feeding regimes for animals
- 2 Be able to monitor the feeding of animals
- 3 Understand the planning and monitoring of animal feeding regimes.

Unit content

1 Be able to plan diets and feeding regimes for animals

Plan diets and feeding regimes: types of foods for different herbivore, carnivore and omnivore species; major nutrients and their sources; nutritional sources of different feeds; selection of suitable food; preparation of diets; amount of food; alternatives; timing and frequency of feeding; feeding animals in a group or individually; ways to present foods eg enrichment; planning for species and life stage eg young, old, ill, working, pregnant; cost of feeding

2 Be able to monitor the feeding of animals

Monitoring feeding: amount of food eaten; weight of animals; type of food eaten eg selective feeders; water intake; change in feeding patterns including feeding behaviours; timing between monitoring; feeding requirements in relation to animal work load/uses; recommendations for changes in feeding

3 Understand the planning and monitoring of animal feeding regimes

Planning and monitoring regimes: usability of feeding plans and regimes; evaluation of plans and regimes and suggestions for improvement including influences on animal health and welfare; analysis of wastage and how to prevent this; effectiveness of plans against a budget; cost of feeding over time; feeding and feed quality in relation to animal work load/uses

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:
<p>P1 identify animal nutritional requirements [IE, CT, RL, SM]</p>	<p>M1 identify and provide the sources of individual nutrients for a selected herbivore, carnivore and omnivore</p>	<p>D1 evaluate given feeding plans in relation to animal health, welfare and environmental enrichment, recommending justified improvements</p>
<p>P2 develop feeding plans for animals [CT, RL, TW, SM]</p>		
<p>P3 carry out activities to feed and water animals [TW, EP]</p>		
<p>P4 monitor the effectiveness of the animal feeding plan</p>	<p>M2 explain key points found in feeding records for given animals, relating these to, the original feeding plan.</p>	<p>D2 analyse in detail results of animal feeding monitoring relating this to difficulties, suggesting appropriate improvements.</p>
<p>P5 record results of monitoring animal feeding [IE, EP, SM]</p>		
<p>P6 analyse the factors influencing the development of animal feeding plans [SM, IE, CT]</p>		
<p>P7 evaluate the effectiveness of the feeding plan:</p> <ul style="list-style-type: none"> ◇ animal behaviour and condition ◇ quantities of food eaten ◇ costs of feeding against budget. <p>[RL, IE, CT]</p>		

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

Learners should be given opportunities to practise using animal feeding and monitoring techniques with a variety of species from the following categories: exotic, small mammal, large mammal, rodent and bird. Emphasis should be on practical assessments where possible, with learners given adequate time for them.

All learners should have access to the animals with the emphasis being on health and safety and animal welfare at all times. This will involve careful planning to ensure that animals are not stressed or overused.

Learners should be encouraged to carry out independent research, to allow for guided development of research and independent thinking skills.

Tutors should formulate links with external animal care organisations to give learners a 'real' view of animal feeding and nutrition. This could be via visits to animal establishments and guest lectures from animal care professionals such as representatives from animal feed companies, nutritional experts, vets and veterinary nurses.

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 to the unit and the animal care facilities.
Assignment 1: Planning For and Feeding Animals (P1, P2, P3, P5, M1, D1) Tutor introduces assignment and identifies what is to be included in a feeding plan.
Theory: nutritional requirements of animals, life stages, key nutrients and where they can be found, types of diets: omnivorous, carnivorous, herbivorous.
Practical activity: feeding animals according to plans.
Assignment 2: Monitoring and Recording Feeding (P4, P6, P7, M2, D2) Tutor introduces assignment and explains different ways to monitor and record animal feeding.
Practical activity: feeding animals and monitoring and recording the information gathered according to animal health and welfare.
Theory: evaluation of animal feeding records and how to make improvements.
Theory: budgeting for animal feeding including realistic budgeting of animal care unit at the centre, and learner research into costs of feeding.
Unit review.

Assessment

Ideally assessment of this unit should be carried out using a variety of practical and theory based tasks.

For P1 and P2, learners are required to identify animal nutritional requirements and develop feeding plans for a minimum of one herbivore, one carnivore and one omnivore animal species. Learners could agree the

species with tutors from the centre's animal care facility and create a basic feeding guide, detailing animals' nutritional requirements and a plan for feeding them.

For P3, learners need to carry out activities to feed and water animals. This lends itself to practical assessment of learners feeding the range of species as identified by the tutor according to a general marking sheet. Attention must be paid to health and safety and animal welfare at all times. P5 could also be covered here, with learners recording the results of monitoring animal feeding. This could be assessed by way of a presentation to peers.

For P4, learners are required to monitor the effectiveness of a feeding plan (ideally the plan they have formulated in P2 after using it for a period of time). This could be a written essay on the plan's effectiveness, which can be expanded to cover M1 and D1. P7 could also be covered in the same assessment, with learners evaluating the effectiveness of the original feeding plan according to stipulated points such as cost, quantity of food eaten and animal behaviour and condition.

For P6, learners are required to analyse the factors influencing the development of feeding plans. This could be through a short-answer test learners carry out in class.

For M1, learners are required to know how all of the major nutrients for a given omnivore, herbivore and carnivore animal species are sourced and provided. This could be evidenced through development of feeding plans for the different species.

For M2, learners are required to explain the key points in feeding records produced. This could be their own documentation, but it would be useful for learners to evaluate someone else's plan and records to develop their independent learning and analysis skills.

For D1, learners are required to suggest changes to the plans, including an evaluation of the original and justifying the proposed changes. Learners must relate these changes to animal health, welfare and enrichment. This should develop their evaluation skills and animal welfare knowledge related to feeding. Evidence could be in the form of an essay.

Finally, for D2, learners must analyse feeding records including why real or potential difficulties were/could be encountered, how to resolve these with improvements that could be made for future feeding. Analysis must relate to budget, amount of food eating and animal health and welfare. Learners could use real records that identify feeding problems or a case study set by the tutor or a mixture of both. Evidence could be in the form of a project or presentation.

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, P5, M1, D1	Planning for and Feeding Animals	You work for a local animal collection and have been asked to plan for, provide, monitor and record diets for a range of animals. You need to identify sources of individual nutrients for a given animals. You must evaluate these plans and suggest and justify changes to these in light of your monitoring and records.	<p>Presentation and basic feeding guide for a species.</p> <p>Feeding records.</p> <p>Short essay with plans.</p> <p>Practical feeding observation records.</p>

Criteria covered	Assignment title	Scenario	Assessment method
P4, P6, P7, M2, D2	Monitoring and Recording Feeding	You must monitor, analyse and evaluate your feeding plans developed earlier, according to costs, amount eaten and animal behaviour, health and welfare. You need to explain the key points from monitoring recorded and describe how they relate to the feeding plans. You should relate your analysis to problems with feeding, making appropriate suggestions for improvement.	Written assignment.

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 Accommodation	Element CU35.1 Specify diets and feeding regimes Element CU35.2 Monitor and evaluate the feeding of animals
	Undertake an Investigative Project in the Land-based Sector

Essential resources

Learners will need regular access to an animal care unit, although care should be taken not to stress animals or to compromise their welfare.

Access to a variety of species and feeding equipment is essential, and learners should have access to a herbivore, carnivore and omnivore.

Employer engagement and vocational contexts

Learners can be introduced to a variety of professionals from different companies and organisations, such as vets, RSPCA officers, food company representatives and breeders, to broaden their knowledge and make the learning experience interesting and contextualised. This could be either guest lectures or off-site visits to different establishments. All sites should be checked for health and safety before the visits.

Indicative reading for learners

Textbooks

Alderton D – *You and Your Pet Bird* (Dorling Kindersley, 1995) ISBN 9780751301571

Benyon P H et al (eds) – *BSAVA Manual of Exotic Pets* (British Small Animal Veterinary Association, 2002) ISBN 9780905214474

Brown M and Richardson V – *Rabbitlopaedia* (Ringpress Books, 2000) ISBN 9781860541827

Dallas S – *Animal Biology and Care* (Blackwell Science, 2002) ISBN 9780632050543

Evans JM and White K – *Catlopaedia – second edition* (Ringpress Books, 2003) ISBN 9781860540189

Evans JM and White K – *Doglopaedia – second edition* (Ringpress Books, 2002) ISBN 9781860540745

Girling S – *Veterinary Nursing of Exotic Pets* (Blackwell Publishing, 2003) ISBN 9781405107471

Manning D – *Collins Exotic Pet Handbook* (Collins, 2003) ISBN 9780007142583

Raiti P and Girling S (eds) – *BSAVA Manual of Reptiles* (British Small Animal Veterinary Association, 2004) ISBN 0905214757

Poole T – *UFAW Handbook on the Care and Management of Laboratory Animals: Terrestrial Vertebrates, 7th Edition* (Blackwell Science, 1999) ISBN 9780632051311

Warren D – *Small Animal Care and Management, 2nd Edition* (Thompson Learning, 2000) ISBN 9780766814240

Websites

www.defra.gov.uk Department for Environment, Food and Rural Affairs

www.pdsa.co.uk PDSA

www.rspca.org.uk The Royal Society for the Prevention of Cruelty to Animals

www.ufaw.org.uk Universities Federation for Animal Welfare

www.waltham.com Waltham

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	identifying nutritional requirements for different animals, planning diets, recording results of monitoring feeding, analysing results of monitoring feeding, making suggestions for changes to plans, researching material for their assignments
Creative thinkers	identifying animal nutrition requirements, planning for feeding and monitoring, making suggestions for changes, evaluating effectiveness of plans, analysing factors influencing development of plans
Reflective learners	evaluating and monitoring effectiveness of feeding plans, developing feeding plans, evaluating and analysing results of feeding and monitoring
Team workers	developing feeding plans for animals, carrying out feeding and watering activities
Self-managers	identifying nutritional requirements, developing plans, analysing factors influencing feeding plans, identifying sources of individual nutrients, making suggestions for changes and analysing results
Effective participators	carrying out feeding and watering activities, recording and monitoring animal feeding, identifying reasons for problems and making suggestions for change.

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	planning and carrying out research activities related to feeding animals analysing information on alternative ways of feeding and recording feeding
Creative thinkers	asking questions to extend their thinking during lectures and practical sessions trying out alternatives or new ways of providing food for animals adapting ideas as circumstances change eg, new equipment, new nutritional information
Reflective learners	identifying opportunities for feeding changes and their own achievements setting goals for themselves eg conquering a fear of handling an animal reviewing progress in practical tasks and coursework
Team workers	working with others to carry out feeding of animals and group activities in class reaching clear agreements regarding who is carrying out which task working together when feeding animals
Self-managers	showing initiative and commitment to animals and their needs dealing with pressures of an ill animal that is not eating managing emotions when it comes to animal welfare and healthcare
Effective participators	discussing issues of concern when feeding an animal or finding an animal in a less than ideal welfare situation identifying improvements to current animal feeding regimes influencing others in their animal feeding regimes and standards.

● Functional skills – Level 2

Skill	When learners are ...
ICT – Use ICT systems	
Select, interact with and use ICT systems independently for a complex task to meet a variety of needs	Using facilities in centres, completing coursework, using smartboards and PCs in class, using interactive materials for teaching and learning, researching subjects on the internet
Use ICT to effectively plan work and evaluate the effectiveness of the ICT system they have used	
Manage information storage to enable efficient retrieval	
Follow and understand the need for safety and security practices	
Troubleshoot	
ICT – Find and select information	
Select and use a variety of sources of information independently for a complex task	
Access, search for, select and use ICT-based information and evaluate its fitness for purpose	
ICT – Develop, present and communicate information	
Enter, develop and format information independently to suit its meaning and purpose including: <ul style="list-style-type: none"> • text and tables • images • numbers • records. 	
Bring together information to suit content and purpose	
Present information in ways that are fit for purpose and audience	
Evaluate the selection and use of ICT tools and facilities used to present information	
Select and use ICT to communicate and exchange information safely, responsibly and effectively including storage of messages and contact lists	

Skill	When learners are ...
Mathematics	
Understand routine and non-routine problems in a wide range of familiar and unfamiliar contexts and situations	suggesting weights of food for animals to suit their needs, working out appropriate dosage of supplements per size of animal, and gathering and analysing weights of animals for healthcare evaluations
Identify the situation or problem and the mathematical methods needed to tackle it	
Select and apply a range of skills to find solutions	
Use appropriate checking procedures and evaluate their effectiveness at each stage	
Interpret and communicate solutions to practical problems in familiar and unfamiliar routine contexts and situations	
Draw conclusions and provide mathematical justifications	
English	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	making presentations
Reading – compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions	researching information for assignments
Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively	writing assignments.