## Unit 1: Animal Health

## Scheme of work

Guided learning hours (GLH): 30
Number of lessons: 30
Duration of lessons: 1 hour. Lessons can be divided or combined as necessary.
Learners should spend lesson time and non-supervised time working on assignments.
*See the specification for full details of unit content.
** Revision sessions do not count as part of the guided learning hours.
$\dagger$ Complete activity during GLH for other unit.

| Lesson | Unit content* | Activities | Links to other units |
| :---: | :--- | :--- | :--- |
| 1 | Unit introduction <br> This unit is primarily applicable to the following <br> specified range of commonly kept animal species: dog, <br> cat, rabbit, goat, chicken and bearded dragon. | Teacher presentation (approx. 10 minutes): Outline the <br> learning aims and the examination that learners must <br> complete for this unit. |  |
| 1 | Lepic A.1 Monitoring signs of good and ill health in <br> (cont.) <br> animals <br> Understand the levels of monitoring required and the <br> frequency at which various signs of monitoring are <br> undertaken: <br> $\bullet \quad$ daily visual checks <br> $\bullet \quad$ weekly physical checks <br> $\bullet \quad$ weight assessment. <br> Daily visual checks <br> Know why daily visual checks are carried out:* <br> [*See the specification for full details of unit <br> content.] | Teacher presentation: Introduction, followed by a short, <br> active discussion and questions and answers session to <br> determine any prior knowledge (e.g. with their own pets). <br> Paired activity: Learners create a thought shower of what <br> should be involved in daily health checks for a given animal. <br> Whole class discussion: Learners provide feedback to <br> peers using answers from the paired activity. Teacher <br> addresses why visual checks are conducted. <br> Teacher-led discussion: Introduce record keeping and <br> necessary animal history, including life stage. Teacher <br> highlights the need to adapt handling technique during <br> different life stages, giving examples from own experience. | Unit 2: Animal |

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| Lesson | Unit content* | Activities | Links to other units |
| :---: | :---: | :---: | :---: |
| $\begin{gathered} 2,3 \text { and } \\ 4 \end{gathered}$ | Topic A. 1 Monitoring signs of good and ill health in animals (continued) <br> Behaviour and temperament visual checks:* <br> - behaviour and temperament checks for dogs and cats:* <br> - behaviour and temperament checks for rabbits:* <br> - behaviour and temperament checks for goats:* <br> - behaviour and temperament checks for chickens:* <br> - behaviour and temperament checks for bearded dragons:* <br> [*See the specification for full details of unit content.] | NOTE: The activities below should be completed across lessons 2, 3 and 4 with learners considering different animal species (see Unit content). This is just for guidance and you may wish to schedule activities differently and vary the activities in each lesson when considering different animal species. <br> Teacher presentation: Introduce and highlight the importance of completing behaviour and temperament visual checks. What is the difference between 'behaviour' and 'temperament'? <br> Whole class activity: Learners watch video clips showing signs of normal behaviour and of stress exhibited by different animal species. Learners discuss the health implications and impact on animal welfare. <br> Individual extension activity: Learners associate the signs of abnormal behaviour exhibited in video clips with a known animal health disease/disorder. <br> Group activity: Learners conduct research signs of normal and abnormal behaviour for an allocated species. <br> Teacher-led discussion: Learners answer teacher's questions, highlighting normal and abnormal behaviour of different animal species. | Unit 2: Animal Handling <br> Unit 5: Principles of Animal Behaviour Practical paired activity: Learners given the opportunity to observe and record animal behaviour in a practical setting. ${ }^{\dagger}$ |
| 5 | Topic A. 1 Monitoring signs of good and ill health in animals (continued) <br> Posture and movement visual checks: <br> - observe animal for any signs of pain, such as:* <br> Urine colour checks: <br> - healthy urine colour:* <br> Signs of unhealthy urination, including:* <br> - chickens and bearded dragons do not produce urine but a semi-solid product called urates, which are passed in combination with faecal matter. | Teacher-led discussion: Use the snowball questioning technique to review signs of normal and abnormal behaviour covered in lessons 2-4, stretching more able learners. <br> Teacher presentation: Assessing posture and movement. Individual activity: For the animals covered, learners watch video clips of animals showing signs of pain (e.g. a dog limping while walking) and then produce a checklist of signs of pain in those animals. <br> Whole class discussion: Recognise the signs of healthy and unhealthy urination (e.g. blood in urine matches with | Unit 5: Principles of Animal Behaviour |

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| Lesson | Unit content* | Activities | Links to other units |
| :---: | :---: | :---: | :---: |
|  | [*See the specification for full details of unit content.] | bladder/kidney infection). <br> Paired activity: Produce a checklist for signs of healthy and unhealthy urination in animals. |  |
| 6 | Topic A. 1 Monitoring signs of good and ill health in animals (continued) <br> Faecal consistency and colour checks: <br> - for all species in the specified range, the presence of foreign objects, worm segments or blood in the faeces, or difficulty in passing the faeces, can indicate health issues <br> - faecal consistency and colour checks for dogs and cats:* <br> - faecal consistency and colour checks for rabbits:* <br> - faecal consistency and colour checks for goats:* <br> - faecal consistency and colour checks for chickens and bearded dragons:* <br> [*See the specification for full details of unit content.] | Teacher presentation: Importance of faecal analysis when assessing animal health. <br> Paired activity: Card matching - match images of healthy and unhealthy faecal formation for designated animals (see Unit content) (e.g. Card A is healthy faecal formation for a dog and Card $B$ is unhealthy faecal formation for a dog). <br> Teacher-led discussion: Based on the previous activity, learners provide feedback to teacher describing healthy and unhealthy faecal formation for all species in the specified range. <br> Individual activity: Learners take general notes on faecal formation for species covered. |  |
| 7 | Topic A. 1 Monitoring signs of good and ill health in animals (continued) <br> Food and water intake checks:* <br> [*See the specification for full details of unit content.] | Teacher presentation: Introduce food and water checks and the practical implications of successful monitoring and recording. <br> Individual activity: Learners analyse data provided by teacher for a given species to review consumption of food and water over a specified period of time (e.g. over a period of one day or one week). <br> Individual activity: Following practical activity (see Links to other units), learners should produce a bar graph to document food and water consumption for given species. (If it is not possible to complete the practical at this time, teacher could supply data from which a bar graph could be produced.) | Unit 5: Principles of Animal Behaviour Practical individual activity: Learners given the opportunity to conduct practical monitoring and recording of food and water consumption. ${ }^{\dagger}$ |

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$\left.\begin{array}{|c|l|l|l|}\hline \text { Lesson } & \text { Unit content }{ }^{*} & \text { Activities } & \text { Links to other units } \\ \hline 8 & \begin{array}{l}\text { Topic A.1 Monitoring signs of good and ill health in } \\ \text { animals (continued) } \\ \text { General appearance checks (species specific): } \\ \text { - look at overall appearance for any signs that a } \\ \text { more in-depth health check may be necessary, } \\ \text { including:* }\end{array} & \begin{array}{l}\text { Whole class discussion: Identify and discuss the } \\ \text { difference in body shape/conformation between different } \\ \text { species and breeds. Learners could discuss the link } \\ \text { between shape/conformation and purpose, e.g. greyhound } \\ \text { versus Labrador dog and cob pony versus thoroughbred } \\ \text { horse. }\end{array} \\ \text { - rate the body condition of mammals (body } \\ \text { condition score): 1-5* } \\ \text { [*See the specification for full details of unit } \\ \text { content.] }\end{array} \quad \begin{array}{l}\text { Practical small group activity: Learners conduct a body } \\ \text { condition score on a dog, cat and goat, rating the condition } \\ \text { using the numerical rating scale provided.* Learners take } \\ \text { photographs using their mobile devices/cameras. } \\ \text { Group homework activity: Learners swap photographs } \\ \text { and condition scores with another group to test reliability } \\ \text { and accuracy of their assessments. Learners feed back } \\ \text { their findings to their teacher during the next lesson. }\end{array}\right\}$

| Lesson | Unit content* |
| :--- | :--- |
|  | $\bullet \quad$ healthy nose/nostrils:* |
|  | $\bullet \quad$ unhealthy nose/nostrils:* |
|  | Weekly physical checks on mouth and teeth: |

- healthy mouth and teeth in dogs, cats, rabbits and goats:*
- unhealthy mouth in dogs, cats, rabbits and goats:*
- healthy beak in chickens:*
- unhealthy beak in chickens:*
- healthy mouth in bearded dragon:*
- unhealthy mouth in bearded dragon:*

Weekly physical checks on coat/fur/scales/feathers and skin:

- healthy coat and fur in dogs, cats, rabbits and goats:*
- unhealthy coat and fur in dogs, cats, rabbits and goats:*
- healthy skin in dogs, cats, rabbits and goats:*
- unhealthy skin in dogs, cats, rabbits and goats:*
- healthy scales in legs of chickens and in bearded dragons:*
- unhealthy scales in legs of chickens and in bearded dragons:*

Weekly physical checks on limbs and paws/feet/ hooves:

- healthy limbs:*
- unhealthy limbs:*
- healthy paws/feet/hooves:*
- unhealthy paws/feet/hooves:*

Weekly physical check on claws/hooves:

Activities
Links to other units
peers. Teacher to correct any misinterpretations.
Teacher presentation: Further develop knowledge on signs of good and ill health and recap knowledge from the last lesson and introduce physical checks on mouth and teeth.
Paired activity 2: Learners complete a photo- or cardsorting activity to recognise the different types of dentition in various species. Learners describe what they can see, highlighting signs of good health and possible ill health.
Whole class discussion 2: Following the paired activity, learners collate their opinions and ideas. Teacher to correct any misinterpretations.
Teacher presentation: Further develop knowledge on signs of good and ill health and recap knowledge from the last lesson and introduce physical checks on coat/fur/scales/feathers/skin.
Paired activity 3: Learners recognise signs of good and ill health in coat/fur/scales/feathers/skin using photos provided. Learners describe what they can see, highlighting signs of good health and possible ill health.
Whole class discussion 3: Following the paired activity, learners collate their opinions and ideas. Teacher to correct any misinterpretations.
Individual activity: Learners review case study literature and images provided, highlighting the effect of disease on coat/fur/scales/feathers/skin.
Teacher presentation: Further develop knowledge on signs of good and ill health and recap knowledge from the last lesson and introduce physical checks on limbs, paws, feet, claws and hooves.
Whole class activity: Learners watch video clips demonstrating healthy and unhealthy movement and locomotion of the dog, cat, rabbit, goat, chicken and bearded dragon. Learners take notes on their findings

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| Lesson | Unit content* | Activities | Links to other units |
| :---: | :---: | :---: | :---: |
|  | - healthy claws in dogs, cats, rabbits, chickens and bearded dragons:* <br> - unhealthy claws in dogs, cats, rabbits, chickens and bearded dragons:* <br> - healthy hooves in goats:* <br> - unhealthy hooves in goats:* <br> Weekly physical check on anogenital area: <br> - healthy anogenital area in all species in the specified range:* <br> - unhealthy anogenital area in all species in the specified range:* <br> Less frequent checks: include weight assessments and veterinarian-led checks which are looked at in more detail in topic A. 2. <br> Recording health assessments: <br> - use paper-based health check sheets and databases to record all elements of a health check <br> - should also record the following identifying information: species/breed, pet name, identification mark (microchip number, freeze brand, breed ring for pedigree rabbits), age, sex. <br> [*See the specification for full details of unit content.] | ready to discuss. <br> Teacher-led discussion: Discuss what learners noted down from the video clips in the whole class activity. Teacher to correct any misinterpretations. <br> Practical paired activity: Learners assess the gait of a specified animal. The learners assess gait using a numerical rating scale provided and evaluate the gait of the specified animal: $\text { (0 = no lameness }-10=\text { severe lameness). }$ <br> Individual activity: Learners complete a worksheet identifying healthy and unhealthy limbs, paws, feet, claws and hooves from a range of photos of a variety of animals. <br> Teacher presentation: Further develop of knowledge on signs of good and ill health and recap knowledge from the last lesson and introduce physical checks on anogenital area. Teacher describes images of healthy and unhealthy anogenital regions. <br> Whole class discussion: Learners discuss information that is required on a health check record and share ideas with each other. Learners also recognise how health check records may differ between species. Teacher provides some examples following the discussion to confirm understanding. <br> Individual or paired activity: Learners create their own health check record cards for a dog, cat, rabbit, goat, chicken or bearded dragon, in light of previous assessments made. Each learner or pair takes one type of animal species and once completed learners compile a class handout containing all of the health check record cards. |  |
| 14, 15, 16 and 17 | Topic A. 2 Quantitative checks <br> Various health assessments are used to gain an accurate measurement of an animal's health. Some quantitative checks can only be carried out in a | NOTE: The activities below should be completed across lessons 14, 15, 16 and 17 with learners considering different quantitative checks in specified animal species (see Unit content). This is just for guidance and you may | Unit 2: Animal Handling - Practical individual activity: Learners given the |

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## Lesson Unit content*

veterinary practice with specialist equipment to get an accurate reading and diagnosis.

Weight assessment

- used to assess weight gain and loss
- affected by various life stages, including:*
- frequency:*
- process:*

Temperature, pulse and respiration (TPR) checks are usually undertaken when ill health is suspected in an animal.

Temperature:

- taken rectally in mammals and birds using a digital thermometer, in degrees Celsius
- before using thermometer, it will need to be checked to make sure it is in good working order, including:*
- process for taking temperature in dogs, cats, rabbits, goats and chickens:*
- abnormalities in temperature in dogs, cats, rabbits, goats and chickens include:*
- process for taking temperature in bearded dragons:*
- abnormalities in temperature in bearded dragons include:*
Pulse in all species in the specified range:
- measured in beats per minute (BPM)
- felt at any point where an artery runs near the surface of the animal's skin, including: femoral pulse found on the inside of the thigh in the groin area; digital pulse at the back of the paw between the stopper pad and the metacarpal pad;


## Activities

wish to schedule activities differently.
Teacher presentation: Introduce quantitative checks and their importance. Explain the difference between qualitative and quantitative assessment to support understanding of the topic.
Individual activity: Learners create a thought shower of all possible reasons as to why weight may fluctuate in animals during their lifetime.
Teacher-led group discussion: Learners answer direct questions on weight assessment affected by life stages.
Individual activity: Using information provided, learners create a 'how to' guide for pet owners with illustrations on how to effectively and accurately weigh their pet (animal allocated by teacher - dog, cat, rabbit, goat, chicken or bearded dragon). The 'how to' guides should cover age, frequency and process. These can then be copied and issued to all learners to be used as a revision tool
Teacher presentation: Introduce TPR checks and explain the reasons why temperature may fluctuate in an animal.

Practical teacher demonstration: Teacher demonstrates the correct technique used to assess temperature in a dog or cat. Teacher justifies appropriate handling and restraint methods and equipment required for taking the animal's temperature.
Whole class activity: Learners review video footage of veterinary personnel monitoring and recording temperature of a dog, cat, rabbit, goat, chicken and bearded dragon. Learners take notes to use to complete homework activity.
Individual homework activity: Learners write up the process of monitoring and recording the temperature of a dog, cat, rabbit, goat, chicken and bearded dragon.
Teacher presentation: Introduce pulse points and explain the reasons why pulse rate may fluctuate in an animal.

## Links to other units

opportunity to demonstrate their ability to monitor and record temperature of a dog or cat Alternatively this may be achieved via simulation.
Unit 2: Animal Handling - Practical individual activity: Learners given the opportunity to demonstrate their ability to successfully monitor and record the pulse rate of a dog, cat, rabbit, goat, chicken and bearded dragon during a practical lesson

Unit 2: Animal Handling - Practical individual activity: Learners given the opportunity to demonstrate their ability to successfully monitor and record the respiration rate of a dog, cat, rabbit, goat, chicken and bearded dragon during a practical lesson.

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| :---: | :---: | :---: | :---: |
|  | coccygeal pulse found underside of the tail near the base <br> - always taken with fingers, not the thumb (because of faint pulse in the human thumb) <br> - process for taking an animal's pulse:* <br> - abnormalities in animal pulse rates could be a sign of:* <br> Respiration in all species in the specified range: <br> - measured in breaths per minute <br> - process for measuring respiration:* <br> - abnormalities in animal respiration rates include:* <br> Veterinary practice-based quantitative checks, which are undertaken only by vets to ensure accuracy of readings and because of complexity of task: <br> - egg count - every 3-6 months, faecal samples will need to be collected and sent to a veterinary surgeon to be screened for intestinal parasites to ensure that worm preventative treatments are working <br> - detailed blood test for presence of bacteria, increased white blood cell count, calcium levels, magnesium levels and sugar levels <br> - more detailed tests on urine for presence of blood, sugar and bacteria <br> - can also carry out TPR checks. <br> [*See the specification for full details of unit content.] | Practical teacher demonstration: Teacher demonstrates the correct technique used to assess pulse rate in a dog or cat. Teacher justifies appropriate handling and restraint methods and equipment required for taking the animal's pulse rate. Alternatively this may be achieved via simulation. <br> Whole class activity: Learners volunteer to go up to the front of the class and identify a possible pulse point on a large dog or cat diagram. <br> Teacher-led discussion: Teacher highlights the correct pulse points on the dog or cat diagram from the suggestions provided. <br> Individual homework activity: Learners complete a worksheet locating the pulse points on a dog, cat, rabbit, goat, chicken and bearded dragon using the diagrams provided. <br> Teacher presentation: Introduce respiration rate and explain the reasons why respiration rate may fluctuate in an animal. <br> Practical teacher demonstration: Teacher demonstrates the correct technique used to assess respiration rate in a dog or cat. Teacher justifies appropriate handling and restraint methods and equipment required for taking the animal's respiration rate. <br> Guest speaker: Invite a vet/veterinary nurse to brief the class on veterinary practice-based qualitative checks and hold an active discussion on this. Learners take notes to use to complete homework activity. <br> Individual homework activity: Learners write up their notes on veterinary practice-based qualitative checks. |  |
|  | Revision session** <br> Revision session to assess learner knowledge and understanding of learning aim A. | Learners could be given a centre-devised practice paper. <br> Alternatively use questions from BTEC Sample Assessment Materials (SAMs) available on the Pearson website. |  |

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| Lesson | Unit content* $^{*}$ | Activities | Links to other units |
| :--- | :--- | :--- | :--- |
|  | Revision session** <br> Give feedback on practice paper to assess learner <br> knowledge and understanding of learning aim A.Provide learners with feedback about their performance in <br> the practice paper. <br> Learners identify any areas where they need to improve <br> their knowledge and devise a revision plan. |  |  |

Learning aim B: Understand common diseases, their causes, transmission and treatment

19

## 18 and Topic B. 1 Animal diseases and modes of transmission

Disease-causing microorganisms, including:

- bacteria (e.g. Leptospira): single-celled organisms which are invisible to the naked eye, which do not need a host to survive (they can live in the environment), and which possess a cell wall
- viruses: not a living cell so can only reproduce in plant or animal cells, so need a host to survive; they are only visible under a microscope, and do not have a cell wall (instead, they have a protein coat)
- fungi: organisms including moulds, yeasts and mushrooms, many of which can be seen by the naked eye. Many fungi live in the environment so do not need a host to survive

Modes of transmission, including:

- direct contact: defined as occurring when one part of an animal comes into contact with the body of another animal (e.g. when skin surfaces touch, or one animal licks another's body)
- indirect contact: defined as occurring when two or more animals come into contact with the same materials (bodily secretions including blood, saliva, vomit, faeces, mucus, sneeze droplets) or inanimate objects (bedding, food bowls, drinking bottles, accommodation, fencing), which then acts

NOTE: The activities below should be completed across lessons 18 and 19 with learners considering different animal diseases and modes of transmission (see Unit content). This is just for guidance and you may wish to schedule activities differently.
Teacher presentation: Introduce the new learning aim and topic. Define pathogen and explain the difference between infectious and non-infectious diseases. Following introduction, teacher allocates each learner a species to focus on (dog, cat, rabbit, goat, chicken or bearded dragon) throughout learning aims B and C. Learners record sufficient notes on their given species to create a detailed fact file. This activity should also be completed during private study time. Fact files on different species can be copied and provided to other learners as a revision tool.
Individual activity: Learners create a thought shower on all possible causes of disease, including both infectious and non-infectious diseases.

Small group activity: Learners discuss and compare the causes of disease and discuss and identify how infections enter and exit the body.
Teacher presentation: Disease-causing organisms and the differences between them. Teacher discusses how disease is spread, including direct and indirect contact and vector transmission, providing clear examples of diseases.
Individual extension activity: Card matching - match pathogens to diseases and their mode of transmission.
Teacher-led discussion: Explain the meaning of 'zoonotic'

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| :---: | :---: | :---: | :---: |
|  | as a source of infection <br> - vector transmission: when disease is spread by biting insects and ticks. The insect or tick carries the disease but is not affected by the disease. <br> Zoonotic diseases: <br> - a zoonotic disease is defined as a disease that can be transmitted from animals to humans <br> - some parasites can also be defined as zoonotic. <br> Notifiable diseases: <br> - a notifiable disease is a disease named in the Animal Health Act 1981 (or an Order made under that Act) <br> - must be reported immediately to either the local authorities, veterinary surgeon, animal health officer or Defra in order to reduce disruption to the food, farming and tourism industries and to protect public health <br> - can either be a health risk to humans or extremely contagious; infected animals need to be isolated and possibly euthanised, and carcasses disposed of safely <br> - include rabies, avian influenza (bird flu), and foot and mouth disease. | and notifiable disease and the impact of these diseases on an animal collection. Teacher to highlight real examples of diseases using Defra data. <br> Individual activity: Using case studies provided, learners identify types of zoonotic and notifiable disease in the UK and their causal factors. Using the information in the case studies, learners complete a table to categorise diseases into zoonotic, notifiable, or zoonotic and notifiable. <br> Whole discussion: Learners engage in active discussion about zoonotic and notifiable disease providing feedback to their teacher and peers, highlighting the information they have collated. |  |
| 20 | Topic B. 1 Animal diseases and modes of transmission (continued) <br> Prevention of diseases, including: <br> - vaccination: modified bacteria or virus is injected into the animal to stimulate the immune system to fight it off, so that if the animal is infected by the same microorganism their immune system can respond faster <br> - good husbandry techniques, including cleaning | Teacher-led discussion: Introduce preventative care and treatments and highlight the link with the Animal Welfare Act 2006. Explain the purpose of vaccination briefly. <br> Whole class discussion: Measures taken to prevent disease (including preventative care regimes and treatments). Learner suggestions to be written on the whiteboard. <br> Paired activity: Learners research the vaccinations required for a designated species, creating a fact file. They |  |

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|  | and disinfecting animal equipment (housing, fencing, bedding, food bowls, water bottles) <br> - measures to prevent spread of disease:* <br> Vaccinations required for each of the species covered in this topic include:* (Dogs, cats, rabbits, goats, chickens and bearded dragons.) <br> [*See the specification for full details of unit content.] | then feed back their findings with their teacher and peers. The fact files for the different species are collated and copied for all learners as a revision tool. |  |
| $21,22$ $\text { and } 23$ | Topic B. 2 Symptoms, treatment and prevention of common diseases in animals <br> Salmonella (bacterium): <br> - affects all species in the specified range, though more common in chickens and bearded dragons <br> - a zoonotic disease, so care must be taken when dealing with infected animals <br> - symptoms include:* <br> - treatment is symptomatic and includes:* <br> - prevention includes:* <br> Myxomatosis (virus): <br> - only affects rabbits <br> - spread by mosquitoes and fleas, or direct contact with an infected rabbit <br> - symptoms include:* <br> - treatment is symptomatic to ease suffering of animal and includes:* <br> - prevention includes:* <br> Ringworm (fungus): <br> - found in mammal species <br> - a zoonotic disease, which means that humans can | NOTE: The activities below should be completed across lessons 21, 22 and 23 with learners considering different animal diseases and modes of transmission (see Unit content). This is just for guidance and you may wish to schedule activities differently. <br> Lesson 21 <br> Teacher presentation: Cause, symptoms, treatment and prevention of salmonella (bacterial disease). <br> Small group discussion: Learners discuss other diseases caused by bacteria (linked to lessons 18 and 19) and whether they are zoonotic/notifiable. <br> Individual activity: Learners create a poster for animal owners on salmonella (including cause, symptoms, treatment and prevention). <br> Homework individual activity: Learners review information provided on cause, symptoms, treatment and prevention of myxomatosis (viral disease) in preparation for next lesson. <br> Lesson 22 <br> Teacher-led discussion: Teacher starts discussion, using images of affected rabbits, and requests feedback from learners following individual homework activity from previous lesson. Learners pair up and volunteer their findings and describe the cause, symptoms, treatment and |  |

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| :---: | :---: | :---: | :---: |
|  | catch it, so care must be taken when working with infected animals <br> - symptoms include:* <br> - treatment includes:* <br> - prevention includes:* <br> [*See the specification for full details of unit content.] | prevention of myxomatosis. <br> Individual activity: Learners research other viral diseases that commonly affect the range of animals specified, using textbooks or the internet. <br> Lesson 23 <br> Teacher presentation: Further develop knowledge of diseases and recap lessons 21 and 22. Introduce ringworm (fungal disease). <br> Individual activity: Learners review an article/case study on ringworm, including photographs of affected animals, and make notes on cause, symptoms, treatment and prevention. <br> Whole class discussion: Learners discuss the implications of an outbreak of ringworm at a given animal collection. |  |
|  | Revision session** <br> Revision session to assess learner knowledge and understanding of learning aim B. | Learners could be given a centre-devised practice paper. Alternatively use questions from BTEC Sample Assessment Materials (SAMs) available on the Pearson website. |  |
|  | Revision session** <br> Give feedback on practice paper to assess learner knowledge and understanding of learning aim B. | Provide learners with feedback about their performance in the practice paper. <br> Learners identify any areas where they need to improve their knowledge and devise a revision plan. |  |

Learning aim C: Understand the signs, symptoms, prevention and treatment of common parasites

| 24,25, | A parasite is defined as an organism that lives in or on |
| :--- | :--- |
| 26,27 | another organism, deriving nutrients from the host |
| and 28 | organism and causing the host organism harm. |
|  | Learners will need to recognise and identify the <br> features of each parasite from images provided. |
|  | Topic C. 1 Ectoparasites, their symptoms, <br> prevention and treatment |
|  | Ectoparasites are parasites found on the outside of the |

NOTE: The activities below should be completed across lessons 24, 25, 26, 27 and 28 with learners considering different ectoparasites (see Unit content). This is just for guidance and you may wish to schedule activities differently.
Teacher presentation: Introduce new learning aim and topic. Teacher illustrates using a flow diagram, the categories and subcategories of ectoparasites (i.e. insects

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animal. There are a number of ectoparasites that affect the animals discussed in this unit, but this unit will focus on three common examples.

Flea:

- description: small, six-legged, wingless insect that possesses specially adapted legs for jumping and specialised mouth parts for piercing skin and sucking the blood of their host
- life cycle:*
- associated diseases: responsible for spreading myxomatosis in rabbits
- symptoms include:*
- prevention:*

Tick (sheep tick):

- description:*
- life cycle:*
- female adults lay eggs on the ground, after blood meal from host. When larvae emerge, they feed primarily on small mammals and birds. After feeding, they detach from their host and molt to nymphs on the ground, which then feed on larger hosts and molt to adults. The life cycle takes at least one year to complete
- associated diseases: ticks can spread a variety of diseases, some of which are zoonotic, such as Lyme disease (a bacterial disease), so special care must be taken when removing ticks
- signs/symptoms include:*
- treatment:*
- prevention:

Mite:

Activities
Links to other units
(fleas, lice and flies) and arachnids (i.e. mites and ticks).
Teacher describes the life cycle of a flea.
Individual activity: Learners draw and annotate the life cycle of a flea.
Individual activity: Using a bio viewer or microscope, learners identify the body parts of a flea from a prepared slide and draw what they can see.

Individual activity: Learners read an article on flea allergy dermatitis and then complete written review questions on flea allergy dermatitis.
Whole class discussion: Learners discuss and identify preventative measures and treatment of fleas. Learners link this to the life cycle of the flea
Individual activity: Learners make notes on the life cycle of a tick, using textbooks or the internet.
Teacher-led discussion: Teacher starts discussion, using images of ticks, and requests feedback from learners following previous individual activity. Teacher reviews the life cycle of a tick with learner contributions.
Individual activity: Using a bio viewer or microscope, learners identify the body parts of a tick from a prepared slide and draw what they can see.
Individual activity: Learners read and review an article on Lyme disease.
Group discussion: Learners discuss the signs/symptoms, treatment and prevention of ticks.
Individual activity: Learners to complete review questions on the tick and provide verbal feedback to teacher and peers on completion.
Teacher presentation: Introduce the topic of mites and describe their appearance using images.
Teacher-led discussion: Explain the link between mites and disease transmission and zoonoses. Cover symptoms,

| Lesson | Unit content* | Activities | Links to other units |
| :---: | :---: | :---: | :---: |
|  | - description:* <br> - symptoms include:* <br> - prevention:* <br> - treatment:* <br> [*See the specification for full details of unit content.] | prevention and treatment of different types of mite. Use direct questioning with learners to identify the ways in which mites can be spread. <br> Individual activity: Using a bio viewer or microscope, learners identify the body parts of a mite from a prepared slide and draw what they can see. <br> Paired activity: Learners identify unlabelled ectoparasites (see Unit content) from slides using a bio viewer or microscope or from images. |  |
| $\begin{gathered} 29 \text { and } \\ 30 \end{gathered}$ | Topic C. 2 Endoparasites, their symptoms, prevention and treatment <br> Endoparasites are parasites found on the inside of the animal. There are a number of endoparasites that affect the animals discussed in this unit, but this topic will focus on two common examples. <br> Tapeworm: <br> - description:* <br> - transmission: some species of tapeworm are zoonotic, so special care should be taken when handling infected animals, especially when dealing with their faeces (gloves should be worn and safe disposal of faeces and gloves is very important) <br> - signs/symptoms include:* <br> - prevention and treatment:* <br> Roundworm: <br> - description:* <br> - transmission: roundworm is zoonotic, so special care must be taken when handling infected animals, especially when dealing with their faeces (gloves should be worn and safe disposal of faeces and gloves is very important) <br> - signs/symptoms include:* | NOTE: The activities below should be completed across lessons 29 and 30 with learners considering different endoparasites (see Unit content). This is just for guidance and you may wish to schedule activities differently. <br> Teacher presentation: Introduce new topic and categories of endoparasite. Discuss tapeworm description, transmission, signs/symptoms, treatment and prevention. <br> Individual activity: Learners draw a tapeworm, labelling the body parts. <br> Teacher-led activity: Snowball questioning by teacher to check learning on tapeworms. <br> Teacher presentation: Introduce roundworm and explain parasite transmission. <br> Whole class activity: Learners watch a video on types of roundworm in cats (toxocara cati) and dogs (toxocara canis). Learners take notes on transmission, signs/symptoms, treatment and prevention. Learners discuss what they found out from the video. Teacher to correct any misinterpretations. <br> Guest speaker: Invite a vet/veterinary nurse/animal health specialist to deliver a talk on responsible pet ownership and the use of prophylaxis. Learners take notes which can then be discussed as a class after the visit. | Unit 2: Animal Handling |

## Unit 1: Animal Health

| Lesson | Unit content* | Activities | Links to other units |
| :--- | :--- | :--- | :--- |
|  | $\bullet$ prevention and treatment:* <br> [*See the specification for full details of unit <br> content.] | Revision session** <br> Revision session to assess learner knowledge and <br> understanding of learning aim C. | Learners could be given a centre-devised practice paper. <br> Alternatively use questions from BTEC Sample Assessment <br> Materials (SAMs) available on the Pearson website. |
|  | Revision session** <br> Give feedback on practice paper to assess learner <br> knowledge and understanding of learning aim C. | Provide learners with feedback about their performance in <br> the practice paper. <br> Learners identify any areas where they need to improve <br> their knowledge and devise a revision plan. |  |
| TOTAL: $\mathbf{3 0}$ hours |  |  |  |

