

## ENVIRONMENTAL AND LAND-BASED STUDIES

### Unit 5: Plants, animals and humans: how they relate



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## Environmental and Land-based Studies

### Level 3 Unit 5: Plants, animals and humans: how they relate

#### Sample scheme of work

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This is an example of a scheme of work. You can adjust it or extract content to create a scheme of work to suit your delivery needs. It can also be adjusted by adding theory workshops to support learners who have/need additional learning time.

This unit is assessed through a centre set and marked assignment.

<b>Total GLH</b>	60
<b>Delivery model</b>	Based on teaching three-hour sessions.
<b>Aim</b>	Learners will: <ul style="list-style-type: none"> <li>• be able to discuss how plants, animals and humans interrelate</li> <li>• understand how the characteristics of the plant or animal affect its purpose for humans and how humans manipulate them.</li> </ul>
<b>Notes</b>	<p>The <i>Animal Farm</i> series provides useful insight on how humans are manipulating plants and animals to provide higher service. These will be a good discussion starter if segments are used at appropriate times throughout this unit.</p> <p><a href="http://www.channel4.com/science/microsites/A/animal_farm/index.html">www.channel4.com/science/microsites/A/animal_farm/index.html</a></p> <p>The three functional skills units for ICT (use ICT appropriately, find and select information, and develop, present and communicate information) are abbreviated as follows: Use ICT, F&amp;S ICT and DPC ICT.</p>

Topic	Activities, assignments, assessments	LO and AC	PLTS	FS	GLH	Resources and other comments
<p><b>1</b> Introduction to unit</p> <p>How do plants, animals and humans relate?</p>	<p>The tutor should lead a class discussion on the subjects that will be covered in this unit.</p> <p>In groups of three, learners should create thought showers/mind maps to discuss the contributions to society of one of the following: wild plants, cultivated plants, wild animals and domesticated animals.</p> <p>Learners are then to present their thought showers to the class.</p> <p>As a class, discuss how plants and animals maintain human health and how the economic climate may impact on these roles.</p>	AC1a	TW1, 2 CT3	SL DPC ICT	3	
<p><b>2</b> Plants and animals and human health</p>	<p>Invite guest speakers from a range of ELB enterprises where plants and animals are used to maintain human health. Consider how these enterprises contribute to the environment and the economy.</p> <p>Learners must rotate the guest speakers' presentations.</p>	AC1a, b AC2a, b	CT2	SL	3	Speaker from: PAT, a lab, aromatherapy centre, food production company, horticultural centre.

Topic	Activities, assignments, assessments	LO and AC	PLTS	FS	GLH	Resources and other comments
<b>3</b> Environmental obligation of an ELB business	<p>Conduct a group discussion on the responsibilities that an ELB enterprise has to the environment.</p> <p>Using scenario cards with the details of ELB enterprises on, learners must consider the environmental impact of these ELB enterprises.</p> <p>Follow with a group discussion on environmental legislation.</p> <p>Using scenario cards learners to identify how certain scenarios are in breach of legislation.</p>	AC2b	IE3	SL R W	3	
<b>4</b> The ELB sector and economy	<p>Consider the effects that the economic climate has on a range of ELB businesses and how this will impact on society.</p> <p>Use case studies on a range of ELB businesses to demonstrate the effects they have on the economy and vice versa.</p> <p>Follow with a group discussion to share these thoughts.</p>	AC2b, c	CT2, 4	SL	3	

Topic	Activities, assignments, assessments	LO and AC	PLTS	FS	GLH	Resources and other comments
<b>5</b> Plants and animals and their role in recreation, sport, science and technology	<p>In small groups, learners should research and produce a presentation with comprehensive notes, which should be made available for other learners. The following topics all are to be covered across the class.</p> <p>How plants and animals are central to :</p> <ul style="list-style-type: none"> <li>• how we maintain and improve wild and managed environments</li> <li>• recreational and leisure areas and activities</li> <li>• sport</li> <li>• science</li> <li>• technology</li> <li>• improving our understanding of the natural world.</li> </ul>	AC1a, b	TW1, 2  SM2	Use ICT  F&S ICT  DPC ICT	3	
<b>6</b> Plants and animals and their role in recreation, sport, science and technology (continued)	Presentation of the previous week's research.	AC1a, b	TW5, 6	DPC ICT  SL	3	

Topic	Activities, assignments, assessments	LO and AC	PLTS	FS	GLH	Resources and other comments
7 Ethics	<p>Conduct a group discussion on breed development. Look at examples, eg dog breeding (kennel club standards resulting in health complications of the animals who are bred to meet those standards).</p> <p>Define the term 'ethics'.</p> <p>Follow with a group discussion on how ethics affect us in our daily lives.</p> <p>Use scenario cards detailing particular situations and ask learners what the ethical response would be to each situation.</p> <p>Discuss how we can influence industry to make ethical decisions.</p>	AC2a	SM2  CT2  IE3  EP6	SL  R  W	3	Resource: <a href="http://www.channel4.com/science/microsites/A/animal_farm/index.html">www.channel4.com/science/microsites/A/animal_farm/index.html</a>
8 What is welfare? Are our actions humane? How do we determine best practice?	<p>Define the term 'welfare'.</p> <p>Learners must explain, in detail, via the medium of a slide show, how the welfare of the animals is affected and the influence that this will have on the end product or service.</p> <p>Conduct a group discussion about how we decide what is humane.</p> <p>What is 'best working practice'?</p> <p>Show short multimedia footage. Learners should comment on whether what has been seen is humane and best working practice. All comments must be clearly justified.</p>	AC2b	CT3	SL	3	

Topic	Activities, assignments, assessments	LO and AC	PLTS	FS	GLH	Resources and other comments
<b>9</b> RSPCA conference	If possible, learners should attend an RSPCA conference on the welfare, ethical and social responsibilities for the safety of animals and their humane use within ELB enterprises. If attending is not possible, arrange a mini conference for the learners.	AC2a, b	CT1, 2	SL	3	
<b>10</b> What are the welfare, ethical and social issues to consider when running an enterprise that affects plants and animals?	Learners must research the welfare, ethical and social responsibilities and the humane issues. They should produce a report that critically compares how these may differ to those discussed in last week's conference.	AC2a–c	CT1, 2 SM1	Use ICT F&S ICT DPC ICT	3	
<b>11</b> How does commercial production affect produce?	Carry out a group discussion on how the production of a product is altered when being produced for commercial reasons and how this is achieved. The discussion should cover selective breeding and the use of hybrids.  Learners must research how the commercial market has changed in response to consumer demand. They should consider how conservation can support the diversity of produce that is available.	AC2c	SM2 CT2	SL W Use ICT F&S ICT	3	Example of research topic: consumers wanted cheap apples, which meant that golden delicious monopolised the market. Consumers then wanted taste, which led to a variety of apples being made available.
<b>12</b> Environmental impacts	Using case studies of an ELB enterprise within the regional area, conduct a group discussion to identify the measure that environmental impact would be monitored against.  Learners must choose one of the case studies and produce an annotated poster on the environmental impacts of this business and any method that may be in place to control/reduce this.	AC2c	IE3 CT2	SL	3	

Topic	Activities, assignments, assessments	LO and AC	PLTS	FS	GLH	Resources and other comments
<b>13</b> How does the environmental impact of a business change as it grows?	<p>As a class, discuss a UK-based international ELB enterprise. Learners must discuss the environmental impacts that this business has and the methods in place to manage this.</p> <p>Learners should compare this to a chosen case study from the previous week and explain how this differs between a large company and a small company.</p>	AC2c	CT1, 2	SL W R	3	
<b>14</b> How and why is waste production and pollution monitored?	<p>Arrange a visit to the local council to meet with the environmental and waste reduction teams. The focus should be on how waste production is assessed and the industry standard methods to reduce this.</p>	AC3a	CT1	SL	3	Waste is to be considered in all forms: rubbish, organic matter, water, energy and any from subsidiary actions.
<b>15</b> Justify and implement strategies for improvement in waste production and pollution levels	<p>Learners must produce a brochure to be given to a new ELB company that advises on methods for reducing waste and pollution. It must also give clear guidance on how waste production and pollution is assessed.</p> <p>Using a scenario of an ELB enterprise that has an identified weakness in its pollution and waste production/control, learners should suggest, justify and plan actions that can be implemented effectively by the business without detrimental effects.</p>	AC4a–e	EP2 CT1	Use ICT F&S ICT DPC ICT	3	
<b>16</b> Audit of waste production and pollution	<p>The tutor should lead a discussion on the skills required to complete an audit.</p> <p>Learners must complete an audit of waste production and pollution using the information provided by an anonymous company.</p>	AC3a AC4a, b	IE3	SL W RM	3	

Topic	Activities, assignments, assessments	LO and AC	PLTS	FS	GLH	Resources and other comments
<b>17</b> Analytical evaluation	<p>Explain to learners how to complete an analytical evaluation of their findings.</p> <p>Learners should evaluate their audit and explain the impacts this enterprise has on its surroundings. They must suggest methods to improve and reduce the impacts of waste and pollution.</p>	AC4c–e	CT4  SM2	SL  APM  IPM  W  DPC ICT	3	
<b>18</b> Assessment	See sample assessments				3	
<b>19</b> Assessment (continued)					3	
<b>20</b> Assessment (continued)					3	