

Sustainable Farming



The Sustainable Farming learning resource has been jointly produced by CCEA and the Dairy Council for Northern Ireland. Using videos as stimulus, the activities aim to help pupils understand more about sustainable farming while relating to the GCSE Agriculture and Land Use specification.

The table shows the learning outcomes at a glance for each of the Sustainable Farming resources. It also shows which units of the GCSE Agriculture and Land Use specification the learning outcomes are linked to. This should help teachers to plan where they could use the resources in their lessons.

Resource title	Resource learning outcomes	
	Unit 1: Soils, Crops and Habitats Pupils will be able to:	Unit 2: Animals on the Land Pupils will be able to:
Efficient use of Concentrates		<ul style="list-style-type: none"> describe and explain how food sources (concentrates) are used to meet dietary requirements; describe the main features of a lactation curve; evaluate production rations; investigate the principal costs associated with keeping animals;
Hedge Management and Biodiversity on Farms	<ul style="list-style-type: none"> define the terms habitat, ecosystem and biodiversity; describe how farmers can minimise the impact on ecosystems and improve biodiversity by: <ul style="list-style-type: none"> restoring and establishing hedges; and creating and managing habitats; describe ways farmers can reduce their carbon footprint; evaluate the benefits to farmers of initiatives to enhance biodiversity, for example financial incentives and sustainable agriculture; 	
Intensive Farming	<ul style="list-style-type: none"> describe ways that farmers can reduce their carbon footprint; 	<ul style="list-style-type: none"> assess the advantages and disadvantages of intensive farming systems; and
Regenerative Company of the Future	<ul style="list-style-type: none"> investigate the suitability of producing energy from renewable sources; and understand the importance of the agri-food industry to the economy of Northern Ireland. 	<ul style="list-style-type: none"> discuss consumer food choices in relation to economic, ethical and cultural differences.

continue overleaf



Resource title	Unit 1: Soils, Crops and Habitats Pupils will be able to:	Unit 2: Animals on the Land Pupils will be able to:
Energy Use on the Farm	<ul style="list-style-type: none"> • give examples of how energy is used on a farm; • describe ways that farmers can reduce their carbon footprint, including: <ul style="list-style-type: none"> – increased woodland planting; – careful management of specific habitats; and – energy conservation; and • investigate the suitability of producing energy from renewable sources, such as wind, water, sun and energy crops (biomass), considering location, cost, efficiency and environmental impact. 	
Slurry and Pollution		<ul style="list-style-type: none"> • identify the main sources of farm pollution: <ul style="list-style-type: none"> – silage effluent; – excessive application of fertilisers and animal waste; – air pollution from spreading slurry; – noise from farm machinery; and – dirty yard water; • describe how farmers can reduce pollution from animal waste and effluent, referring to slurry application using a dribble bar or trailing shoe or shallow injection and dirty water irrigation; • demonstrate knowledge and understanding of how technology, such as GPS on tractors, allows for more accurate application of fertilisers and pesticides;
Technology on a Farm		<ul style="list-style-type: none"> • describe how the agricultural industry has adopted technology (such as electronic ID collars or tags, computer-based record keeping programs, pedometers for heat detection and Animal and Public Health Information System (APHIS)) and explain the benefits to farm businesses; and • demonstrate knowledge and understanding of how technology, such as GPS on tractors, allows for more accurate application of fertilisers and pesticides.