

Sample school programme: STEM within the Farming Industry

	Morning		Afternoon		Evening
	Led by farm staff		Led by farm staff		Led by school staff
Monday		Arrival	Practical introduction to farming of cattle, sheep, pigs and poultry. Walk, talk, encounter, question, scene setting.		Maths: How many sheep can a farm support? Data provided on acreage, % lambing, grass production, ...
Tuesday	2 groups, changeover after 1.5 hrs		2 groups, changeover after 1.5 hrs		Topical debate preparation – research set pre residential. Either – is animal breeding a form of genetic modification? Visiting speaker Or – should we eat Dartmoor ponies? Visiting speaker
	Problem of worms. Pathology of soil, importance of worming and resting fields Worm counts, microscope analysis	Worming sheep Practical hands on experience incl. using computer reading of ear tags	Significance of different sheep breeds Qualities, value, practical hands on assessment	Genetics of past flocks – rams vs ewes Theoretical exercise, to which point is it impractical to keep the same ram	
Wednesday Off-site	Visiting poultry farmer		Visit to robotic dairy farm		Evening of games around the fire, night walk
	The importance of climate control technology	Implications of biosecurity – the bugs, the practice and the costs	Engineering and technology involved Tour/discussion around the technology involved	Effects of the weather on milk production	
Thursday	2 groups, changeover after 1.5 hrs		Technology in Vet practice on the farm		Prep of presentations on chosen aspect of food production, visiting NFU specialist to provide backup info as needed.
	Engineering Demo of large machinery – straw blower, baler,...	Engineering Practical use of rollover cage and weighing crates with sheep	Technology in A.I. of cows, Practical hands on	How does an ultra sound scanner work? Practical hands on	
Friday	Presentation of a new proposals to progress the farming industry. What is the variable/problem/limiting factor? What is your proposal, suggestion /theory?		Departure		