



ACTON SCOTT

Historic Working Farm

Food & Farming *- the Sustainable way*

A sustainable challenge with a global dimension

Food & Farming - *the Sustainable way*

A sustainable challenge with a global dimension

An enhanced teaching and learning experience that takes place in the classroom and at Acton Scott Historic Working Farm.

This resource is designed to be used on a white board but could be downloaded if preferred.

Content

- Materials to support teachers in the planning and preparation for a visit to Acton Scott
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- Post-visit follow up suggestions, and additional support

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Fred the Sustainable Scarecrow

Fred encourages the children to think about issues of sustainability by asking questions about the economic, environmental and social impact of farming.

If the children can answer 'yes' to some of these questions, they can measure how sustainable a farm is. The more times they answer 'yes', the more sustainable the farm.

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Consolidates what has been learnt and experienced at Acton Scott Historic Working Farm.

Examples of a systems map used during the visit plus further photocopiable systems maps to complete.

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Fred the Scarecrow



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Food & Farming - the Sustainable way

This activity asks a series of questions to identify prior learning and knowledge about farming.

What is a Farm?





What is sustainable farming?

Sustainable farming is growing food in a way that means you can continue to do it for ever.

- It does not depend totally upon cheap energy (oil) which is used to make fuels, pesticides and fertilisers and which is non-renewable, non-recyclable and polluting.
- It uses the local resources available and recycles as many waste products as it can.
- It uses and sells most of the food locally. This avoids using yet more fossil fuels for long-distance transport in trucks and aeroplanes.
- It is kind to the land and animals that are part of it.

Fred the Sustainable Scarecrow encourages the children to think about issues of sustainability by asking questions about the economic, environmental and social impact of farming.

If the children can answer 'yes' to some of these questions, they can measure how sustainable a farm is. The more times they answer 'yes', the more sustainable the farm.

Economic

Does the farmer produce food on the farm for his animals?

Does the farmer sell his produce locally?

Environmental

Does the farmer use natural ways to improve his soil rather than use fertilisers that pollute the water?

Does the farmer use natural methods to control pests so that wildlife is encouraged to flourish?

Social

Does the farmer employ local people?

Does the farmer treat his animals well?

There are examples of modern Shropshire farms on the **Farming & Countryside Education website:** www.face-online.org.uk

Right hand menu - click on **Resources** and then on **Farm Profiles**. There are two very different Shropshire farms, **Bull Farm** and **Greenacre Farm** which you can use as a model for children to ask some of the questions posed by Fred the Scarecrow.

Discuss which of the farms is the most sustainable and which has the lowest impact on the environment. There are no right or wrong answers or perfect solutions as these issues are very complex. But this is an opportunity to start children thinking about some of the issues surrounding sustainable farming today.

We also recommend **www.virtualfarmwalk.org**. Developed by LEAF (Linking Environment and Farming) which introduces various aspects of farming and caring for the environment.

Success criteria

Children will understand what is meant by sustainable farming, and what impact farming has on the environment.



What is a Sustainable Farm?

Environmental

Does the farmer use natural ways to improve his soil?

Does the farmer use natural methods to control pests?

Does the farmer employ local people?

Does the farmer treat his animals well?

Social

Does the farmer sell his produce locally?

Does the farmer produce food on the farm for his animals?

Economic



Visit to Acton Scott Historic Working Farm



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Food & Farming - the Sustainable way

Food & Farming – The Sustainable Way I

What the purpose of the day is:

To look at how farming was practiced on a small Shropshire upland farm in 1885. We will be thinking about how the farmer worked with the land and the animals and how much of an impact farming had on the environment

The educator will ask the children to think about what they see and learn on the farm and using the same question that Fred the Sustainable Scarecrow asked in the pre-visit work, they can debate the question:

Was Acton Scott a sustainable farm?

Does the farmer produce food on the farm for his animals?

Does the farmer sell his produce locally?

Does the farmer use natural ways to improve his soil rather than use fertilisers that pollute the water?

Does the farmer use natural methods to control pests so that wildlife is encouraged to flourish?

Does the farmer employ local people?

Does the farmer treat his animals well?

The educator will hand out the booklets to pupils and explain how they'll be used before leading the group on a walk through the farm to the Farmyard

Farmyard

Acton Scott is a small mixed farm. In 1885 they kept lots of different animals and grew lots of different crops and vegetables. This meant that they grew almost everything they and the animals needed to eat and the surplus would be sold at market to buy the few things they needed like clothes, soap, salt etc The farmyard is where many of the animals live – take your booklets and try and find as many animals as you can. Whilst you're looking, think about:

What do the animals eat?

Where does their food come from?

Why are they kept?

Is their produce used on the farm or sold at market?

Don't forget, all the animals produce dung which, when composted with rotted down straw to make manure, is of vital use on the farm to return goodness to the soil. Manure is a clear example that on a sustainable farm, nothing is wasted.

The educator will review their answers by drawing a systems map for the pig, showing the foods it eats and where those foods come from as well as how and where the produce of the pig is used.

Machinery

In order to take all that manure to the fields, the farmer would need some help. Then and now the farmer would use machinery to help him with the heavy work. A modern farm needs expensive, complicated and specialist machinery which costs a lot to buy and needs specialist maintenance with parts from all over the world. Here the alternatives were horse drawn machines which were simple to use, repairable by the local

Visit to Acton Scott Historic Working Farm



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blacksmith and built to last a lifetime. A cart was used to take the manure to the fields and a plough would turn the soil and manure over together.

The power source today is the tractor. In the past it was a horse (horse power is still how we measure the power of an engine). Children visit the Shropshire Wagon and the Horse Gin.

The educator will remind everyone about the Heavy Horse and speak about its important role in powering this machinery – the original horse power!

Expanding on this energy source and its sustainable source (until the death of the animal) the educator will also introduce the important role of people on the farm.

Human Energy on the Farm

People power was a very big part of farming in the past. Everyone who lived on a farm had jobs to do. The group will look around the cottage and see what jobs were done here.

The educator will explain that children were also expected to do a lot of hard work on a farm. The group will undertake a seasonal farm task to demonstrate how hard manual labour was and how many hands made light work.

Before lunch the children will complete the final page of their booklet, recording who did what job on the farm.

Food & Farming – The Sustainable Way II

At the fish pond, the educator will stop briefly to discuss why the fish pond would have been important to the farm – for a varied diet, as a home to the farm ducks, an area for migrating birds to land, a water source and for fertilizer.

Vegetable Garden

Sustainable gardening grows crops of fruit and vegetables without damaging the soil or the environment. It usually avoids chemicals or pesticides that may cause damage that we cannot see, and uses natural techniques instead. By growing lots of different plants, we can supply healthy fresh fruit and vegetables for most of the year.

Children will undertake a practical activity which will reinforce these ideas, such as seed planting, harvesting or garden planning.

Scarecrow Making

The children will be split into six teams to design and build their own scarecrow - a perfectly sustainable solution to unwanted pests such as seed eating birds. It also uses and recycles items easily found on a farm.

Staff will need to record the scarecrow building challenge by taking photographs of the process and the result.

The children will evaluate their scarecrows and then dismantle them.

Teachers Notes & Systems Maps



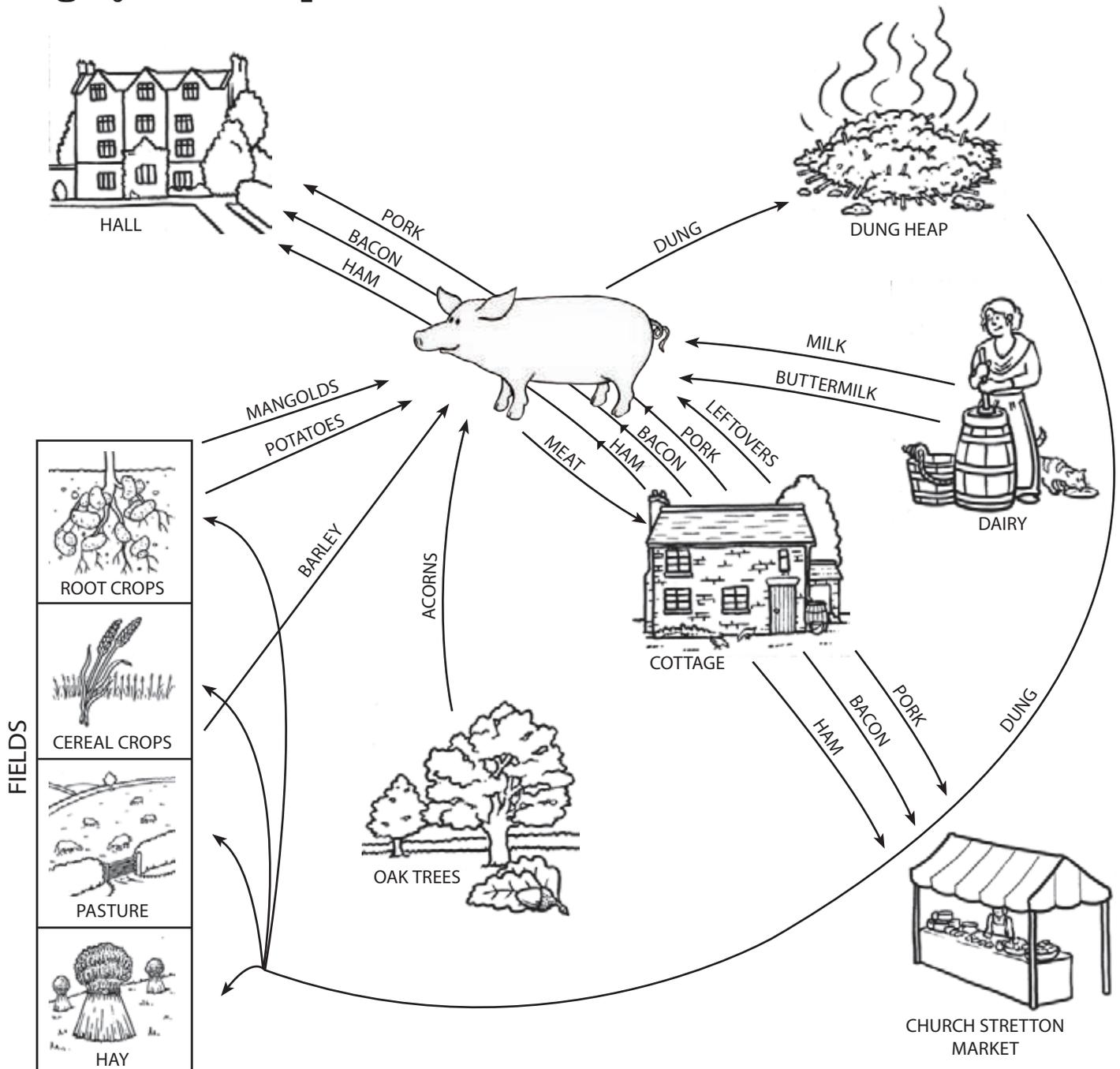
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At Acton Scott you were introduced to the systems map.

Using the information the children recorded in their booklets, can you complete a systems map for each of the other animals featured? To remind you, here is the system map for the pig that was completed with your group during your visit to the farm.

Pig Systems Map

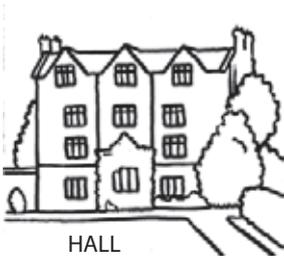


Some photocopyable blank systems maps have been provided for you to complete for the other animals. Using the systems map and reflecting on their experience during their visit, children can then debate the question: **'Was Acton Scott a sustainable farm?'**

Revisit page 4 to find Fred the Sustainable Scarecrow asking the question **'What is a sustainable farm?'**



Chicken Systems Map



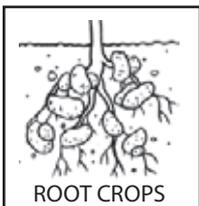
HALL



DUNG HEAP



DAIRY



ROOT CROPS



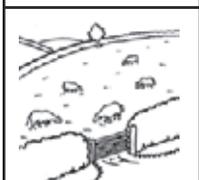
COTTAGE



CEREAL CROPS



OAK TREES



PASTURE



HAY

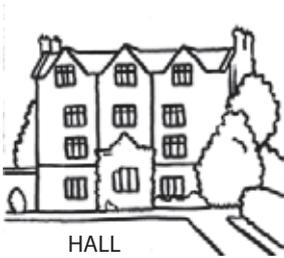
FIELDS



CHURCH STRETTON MARKET



Sheep Systems Map



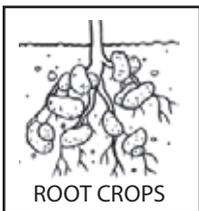
HALL



DUNG HEAP



DAIRY



ROOT CROPS



COTTAGE



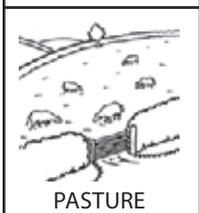
CEREAL CROPS



OAK TREES



CHURCH STRETTON
MARKET



PASTURE

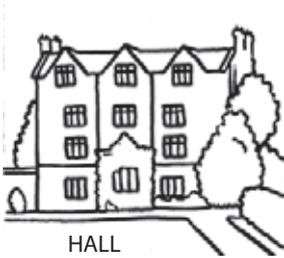


HAY

FIELDS



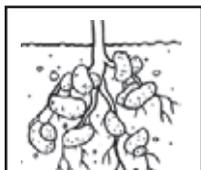
Cow System Map



HALL



DUNG HEAP



ROOT CROPS



CEREAL CROPS



PASTURE



HAY

FIELDS



COTTAGE



DAIRY



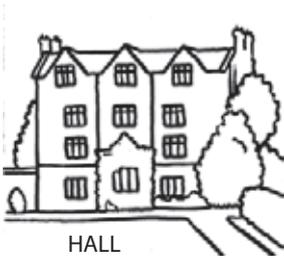
OAK TREES



CHURCH STRETTON MARKET



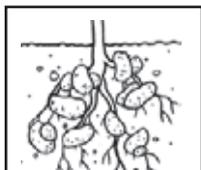
Working Horse System Map



HALL



DUNG HEAP



ROOT CROPS



CEREAL CROPS



PASTURE



HAY

FIELDS



COTTAGE



DAIRY



OAK TREES



CHURCH STRETTON MARKET

Farming in the Gambia



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Food & Farming - the Sustainable way

We have looked at farming in Shropshire past and present, debating how sustainable these examples are. Using the same questions, we can now look at farming in The Gambia and debate how sustainable the practice is in this small country in West Africa.

Revisit page 4 to find Fred the Sustainable Scarecrow asking the question **'What is a sustainable farm?'**



- 'Gambia is Good' is a marketing company that helps small scale Gambian farmers to sell their produce to hotels, restaurants and supermarkets.
- The Gambian hotel industry used to fly in produce from Holland, France and Senegal because they couldn't buy what they wanted from local farmers.
- Now they are buying 20 tonnes of local produce per month during the tourist season.
- 'Gambia is Good' also has a training farm to show local farmers new ways of growing crops.



- Groups of local women work together to grow fruit and vegetables for their families.
- Some of the produce is also sold at local markets to raise money for their families.
- Growing the food is hard work as weeding, watering and planting is all done by hand.
- The women can grow a wide variety of vegetables that provide a varied and healthy diet for their families.



- Women sell the surplus produce from their community gardens at road side stalls.
- They also sell honey from the beehives kept in the community gardens.
- The vegetables sold include tomatoes, onions, peppers, aubergines, beans, squashes, watermelons and cabbages.
- Some of the money they make goes to provide school uniform and school fees.



- Over half the chickens in The Gambia are kept by families for their own use.
- Chickens are allowed to wander freely, scratching for food and improving the soil.
- Chicken meat is very popular in The Gambia.



- Over the last 20 years, rainfall has decreased by about one third.
- In rural areas many wells have dried up due to deforestation, climate change and increased water use.
- People have to dig deeper and deeper to find water.
- All the watering of the community gardens is done by hand



- Goats are kept for their milk, meat and skin.
- Goats are often left to wander freely so their dung is dropped straight onto the soil. But sometimes they eat the crops.
- Increasingly goats are contained and their dung is collected and spread on the soil.



- The windproof fence keeps the animals out so the crops can grow.
- The varieties of vegetables grown are selected to suit local growing conditions.
- Diseased plants are removed by hand to stop the spread of infection.
- Pests are handpicked off the plants or insect barriers erected.
- Beneficial insects are introduced that eat the pests.



- In The Gambia, 80% of the population of 1.5 million people depend on agriculture for their food, employment and income
- The main cash crop of The Gambia is groundnuts.
- Groundnut shells are used for fertilizer.
- Groundnuts are grown in the upland areas and rice in the lowland areas



Extension Activities

- 1.** Compare Acton Scott Farm with farming in The Gambia.
Find out what crops are grown etc using Fred the Sustainable Scarecrow as your starting point for questions.
- 2.** Are there any farming methods used in The Gambia that could be used to make one of the farms discussed in your pre visit preparation more sustainable?
You could also apply this question to Acton Scott Farm
- 3.** Children plan their own sustainable garden at school. This could be a drawing or a 3D model and they should think about all the little things as well as the big (don't forget the insects!) What would they grow? Would this be enough to feed themselves and the rest of the school? What would they have to sacrifice?
Is there anything they would have to buy in order to provide a balanced diet? They prepare a menu that the garden could support – would this keep everyone well fed?
- 4.** They create a scarecrow (or a little one for inside the classroom)

External Links & Acknowledgements



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Acknowledgements:

Shropshire Council
Acton Scott Historic Working Farm
Tide~ global learning
Dr David Gibbon
Tanje Village Museum
Concern Universal
MLA

Resources:

Food & Farming, local & global booklet: FACE/Tide~, 2004. Available from Tide~ global learning
Caring for our world. A practical guide to Education for Sustainable Development for ages 4-8. Fran Martin and Paula Owens, Geographical Association, 2008.
Global learning in primary schools. Tide~ global learning, 2008 (includes web based supporting materials on food and farming)

Websites:

Farming and Countryside Education [FACE]
www.face-online.org.uk
Tide~ global learning
www.tidegloballearning.net
Concern Universal
www.concernuniversal.org
Virtual Farm Walk
www.virtualfarmwalk.org



Tanje Village Museum

