Beyond the Farm – 26 January 2012

Discovering Our Countryside provides a clear, interesting and informative picture of the important role of agriculture and rural affairs in the lives of pupils from an early age, the films and commentaries have been developed specifically to enhance the work that you are doing in your own classrooms.

These are the scripts and associated teaching links and notes for the program of 26 January 2012.

Teaching links.

Below are this program's specific links to:

- National Curriculum
- The 9 Eco School topics.
- National Government initiatives:
    - Healthy Schools
    - Sustainable Schools
    - Every Child Matters
    - Learning Outside the Classroom
- Thinking Skills.

Note on National Curriculum links

The National Curriculum subjects and the units from the QCA schemes of work. (Rather than list each specific National Curriculum objective we have simply listed the QCA Units as these are already linked to the National Curriculum and are generally what schools reference when planning work.)

These will allow you to easily link each program into your existing work.

The programs can also be used to promote interaction by children in pairs and groups, circle time or class discussion, encouraging learning through discussion and interaction

Discovering Our Countryside is a modular approach to rural affairs - we hope you and your pupils will look forward to each new episode as it paints the picture of the rural environment and it's seasonality.

Specific links for this weeks program sections:

Beyond the Farm

Details of this program

This program looks Beyond the Farm in that it concentrates a bit on beyond what people view as they farm i.e. the field and cattle shed, and looks at what happens to products after they have been harvested – either directly on the farm or after they leave the farm.

- **Milk beyond the farm** – Shows that the safety of this important foodstuff starts with storage on the farm and then shows how it is treated to keep it safe to consume and then how it is packed into the cartons of liquid milk you buy as a consumer.
- **Potatoes beyond the farm** – This shows how the surplus of harvest is stored and gradually used to keep the shops of Britain supplied year round – without the need for 'fresh' imports of potatoes

from abroad as some shops would have you believe. It also shows how one of our favourite potato products is made - Crisps!.

- **Wildlife Ponds Pt 2**. – Jon Traill the Yorkshire Wildlife officer for water comes back to give advice on how you could improve or add a wildlife pond to your school or garden. It also shows how important industrial landscapes are reclaimed for wildlife and how many farmers also maintain and improve ponds to benefit wildlife in the countryside.

These sections can also be found on the relevant topic page, which over the weeks will build up the seasonality picture for each of the main themes: Crops / Arable; Livestock; Wildlife and the Countryside

NATIONAL CURRICULUM SUBJECTS LINKS.

Design and Technology KS 1 + 2

Looks at automation in industry – robots to perform tasks Also covers packaging – milk & crisps

Relevant QCA Schemes of Work

Unit 2a Vehicles

Unit 3a Packaging

Unit 6d Controllable Vehicles

Science KS 1 + 2

The videos have lots of science links to the units listed below for example:

Shows plants life cycles and what parts of a plant we use and harvest.

Some of machinery could be used to discuss pushes and pulls.

Relevant QCA Schemes of Work

Unit 1B. Growing plants.

Unit 1E Pushes and Pulls.

Unit 2A Health and Grow.

Unit 2B Plants and Animals.

Unit 3B. Helping plants grow well.

Unit 4B Habitats.

Unit 5B. Life cycles.

Unit 6A Interdependence and adaptation.

ECO SCHOOL TOPIC LINKS

Showing pupils just which of their food products are grown in this country will give them important background knowledge when discussing transport, energy and global perspective of food production and the healthy living choices they make when they go to the shops.

- Transport
- Healthy Living
- Energy

- Global Perspective
- Sustainability

TEACHERS NOTES:

This program should show pupils how farming like many things now depends on computers. This program gives a taster of computers and robots used for feeding livestock and growing plants. We will definitely be re-visiting this theme as some of the technology now used to help farmers produce food is amazing – driverless tractors, laser guided combines to name but two!!

BEYOND THE FARM: SCRIPT

INTRO

Beyond the farm...

Milk

Wildlife

Potatoes

LIVESTOCK - MILK BEYOND THE FARM]

The White Stuff – you saw how it was squeezed from the cow or goat

Over the coming weeks we will see how it gets into: the cartons, butter, yoghurt, cheese

The milk used for these products is specially treated to kill harmful germs and bacteria.

The milk from the dairy animals is first stored in a cooling tank at 6OC

The milk is then heated to 72OC for 15-20 seconds.

This is called pasteurisation

This kills most of the bacteria so it is safe for you to eat or drink.

The pasteurised milk is then put into cartons for you to drink – this is goats milk, cows milk is done just the same

Milk being put in

Labelled to identify the farm milk was produced on

packed by robots

drunk by you

Teachers notes:

The key thing with this process is that it makes the milk safe but does not effect the flavour. If you can get some 'raw' milk you could do a test with your class. You could also have them research the process and who invented it for homework.

For more information on Pasteurisation see - or download to booklet about the process From website.

http://encyclopedia.farlex.com/Pasturisation

http://medical-dictionary.thefreedictionary.com/Pasturisation

CROPS – POTATOES BEYOND THE FARM

Do you remember watching potatoes being harvested last Autumn. Those not needed straight away where put into special cold stores.

These stored potatoes are being gradually taken out of store to keep shops supplied all year

No need for imports here!

Some are packed into bags for you to buy in shops, or made into potato products like waffles or smiley faces.

Here are some potatoes being packed into 25Kg sacks to send out to shops.

These potatoes are being made into something you may especially enjoy!

Can you guess what?

Teachers notes:

Would just like to debunk a couple of urban myths here – potatoes grown and stored in this country are just as good over winter when brought out of store as 'fresh' imported potatoes. This harks back to the James Doherty program which showed potatoes being grown in the desert using seed imported from Scotland, water from under the desert then Irish peat to pack them in before being sent to UK for sale in shops! The only clever thing about this is the business man who managed to pull this off the phrase 'coals to Newcastle' springs to mind. In my opinion this is wrong on so many levels – perhaps a good debate to have with your class if you show them this video and the James Doherty one! http://www.discovering-our-countryside.co.uk/inotes/food-miles/

The other point I would like to make regarding this video is the consumption of potato proudtcs be it mash, crisps or chips – please make the point that they are not 'bad' for you per say as my children came home saying, but if eaten as part of a balanced diet in moderation do no harm whatsoever. A diet of just fruit and veg is not good for you either – it is not balanced!

WILDLIFE – Ponds Pt 2

Last time we saw how ponds are important features of landscapes for wildlife.

Ponds are added to landscapes in various ways.

They can be a result of an important industrial landscape being restored back to nature.

Just like this sand and gravel pit. Sand and gravel is still being extracted in certain parts, but the areas where all the sand and gravel have been dug out have been restored for wildlife by the Yorkshire Wildlife trust.

It is now an amazing place for both beginner and expert birdwatchers, allowing wonderful close up views of waders and wildfowl.

Such reserves can be important for migratory birds

Farmers also dig or restore old ponds for wildlife – here's some ponds being restored and landscaped as part of the Advance Stewardship Scheme which encourages farmers to increase biodiversity on their farms.

You could add a small pond to your garden or school grounds – it's not too difficult here's some tips on how to make it a success.

The tips come from our Yorkshire Wildlife Trust Expert Jon Traill

Different habitats

How deep does our pond need to be?

Planting your pond

How do we get creatures in our pond?

Teachers notes:

http://www.ywt.org.uk/reserves/north-cave-wetlands-nature-reserve

North Cave Wetlands is a fantastic example of how an industrial landscape can be restored for the benefit of wildlife. This old sand and gravel quarry is now an amazing place for both beginner and expert birdwatchers, allowing wonderful close up views of waders and wildfowl

North Cave Wetlands was acquired by the Trust in 2000 and a great deal of work has been undertaken to create a reserve that supports over 170 species of breeding, wintering and passage birds, 200 plant species and 24 butterfly species.

A variety of habitats are managed by controlling the water levels. One lake has been planted with reeds to create an extensive reedbed, which will provide summer breeding for reed warblers and reed buntings. Another lake provides an ideal breeding ground for ringed plover, little ringed plover, oystercatcher, redshank and avocet. Shallow mud ledges are an ideal feeding area for waders and dabbling ducks, and diving ducks such as goldeneye, pochard and smew all use the deeper water. Sand cliffs provide nesting habitat for sand martins and kingfishers, whilst ground nesting birds such as skylark, meadow pipit and redshank breed in the grassland areas.

Hedgerows of hawthorn, blackthorn, and elm, together with an alder woodland, provide food and shelter for wintering goldfinch, redpoll and siskin. An area of cereal crops that is planted but not harvested, supports finches, buntings and tree sparrows in winter. Hobby, merlin and peregrine falcon all hunt over the reserve throughout the year. Common blue, small skipper and wall brown butterflies are seen frequently and several species of dragonfly have been recorded including migrant hawker and four-spotted chaser.

Water levels on the reserve are controlled throughout the year via a system of sluices. The water is highest in the winter months, covering the islands and killing off the vegetation. It is then slowly lowered to reveal bare mud to provide feeding areas for migrating waders. The grassland areas are mown annually in late summer after the breeding lapwings have fledged their young. The cereal field is ploughed at the beginning of spring to re-seed the field; it is left unploughed over winter to provide food for passerines.