

## **Athletic Snails, Micro Bugs Yum! Yum! 11<sup>th</sup> June 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 11 June 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:

## **Athletic Snails, Micro Bugs Yum! Yum! 11<sup>th</sup> June 2012**

### **Details of this program**

This program looks Athletic Snails, Bugs in cows and sheep and how your strawberries get to Wimbledon .

- **Athletic Snails** – How slugs and snails are a pest for both farmers and gardeners. Then we look at what medal a snail might win at the Olympics - to give them a chance we scale them up to be the same size as humans
- **Bugs in Cows and sheep** – We look at how ruminants rely of micro-beasts in their 4 stomachs to help them digest grass making them very important to food production as this allows us to produce food from land we would not otherwise be able to use.
- **Yum! Yum1 Strawberries** – We look at how strawberries are produced in time for Wimbledon snacks.

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.**

#### **Maths KS 1 + 2**

The snails activity lends itself to various maths activities the level and support needed will depend on the pupils and is best set by you as their teacher.

#### **Citizenship KS 1 + 2**

E.g. Shows how farmers look after animals.

#### *Relevant QCA Schemes of Work*

Unit 3 Animals and Us

#### **Design and Technology KS 1 + 2**

Looks how farmers use modern technology to grow crops and provide fresh 5-a-day produce

#### *Relevant QCA Schemes of Work*

Unit 1c Eat More Fruit and Vegetables

#### **Science KS 1 + 2**

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

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

Looks at how we can help bees so important to many of the plant food crops we rely on

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.

These are just the links we thought of – please let us know if you make any more!

### **ECO SCHOOL TOPIC LINKS**

With apologies if we are ‘teaching grandma to suck eggs’ here are some of our thoughts on how our videos link to the Eco School Topics

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.

Discovering Our Countryside - Teachers Notes

- Energy
  - Growing food and the associated energy costs of buying home grown food or imported food
- Water
  - Use of water to grow plants
- Biodiversity
  - How growing studying local habitats and where pest are found can help local biodiversity
- School grounds
  - How the simple act of hunting for mini-beasts can help build up a picture of the school grounds in preparation for the design and creation of new features in your school grounds
- Healthy living
  - How growing your own produce can promote healthy living by promoting a healthy diet and also promoting exercise in the act of growing that produce. The improvement of school ground can also aid mental well being.
- Transport
  - Reduce transport costs of food by growing your own local produce.
- Litter
  - When carrying out gardening tasks introduce children to tidy habits – pick up all packaging and dispose of ‘thoughtfully’ – see waste
  - When outside be it school, garden or countryside “Take only photos Leave only footprints!”
- Waste
  - Explain that gardening and farming is and always has been synonymous with recycling. Re-use seed trays, compost is made from last years ‘recycled’ plants. Think twice about where to put litter – bin or recycle?
- Global citizenship
  - Explain how even the little things we do – where how food comes from, how much we recycle, our biodiversity, can affect the whole world be it good or bad!

**TEACHERS NOTES:****ATHLETIC SNAILS, MICRO BUGS YUM! YUM! 11<sup>TH</sup> JUNE 2012 - SCRIPT****INTRO**

*Athletic snails, Micro bugs, Yum! Yum!*

**ATHLETIC SNAILS**

*Slugs and Snails are the gardeners enemy eating many of their prized plants.*

*They are also a major pest for farmers too, eating and damaging crops like this wheat.*

*Farmers and gardeners must control this pest, otherwise they would have no crops to harvest.*

*Controlling slugs starts right after planting the crop by rolling the seedbed.*

*This compacts the soil making it more difficult for the slugs to move through the soil and attack the crops.*

*Gardeners have some friends in the garden who will catch and eat slugs for them like this thrush.....*

*If this does not stop the slugs then the gardener and farmer will have to use slug pellets to control this pest.*

*The pellets attract the slugs and snails and then kills them, so you need to sure make other animals like birds cannot get then either...*

*Don't touch these pellets if you see them as they are poisonous*

*Snails are 'famous' for moving slowly.*

*So they probably would not win a medal at the Olympics - would they?*

*Well what if we made them as big as humans would they have a chance then?*

*Well before we 'scale' them up we need to measure their speed!*

*Let's have a snail race*

*First find your snail - try looking in the same place you find other mini-beasts...*

*Then race your snails and measure their speed - ask your teacher to help you do this.*

*Basically time how long they take to travel a measured distance e.g. 1 metre*

*The 100 metres takes about 10 seconds so this speed is 10 metres / second*

*The marathon however takes over 2 hours to finish - so it's speed is only 5 m/s*

*So get racing and see how your snails do*

**Teachers Notes**

*The snail racing kits, with stickers, guide etc can be downloaded from the Nature Detectives website*

*[http://www.naturedetectives.org.uk/download/snail\\_racing\\_kit.htm](http://www.naturedetectives.org.uk/download/snail_racing_kit.htm)*

**MICRO BUGS**

*As we saw last time sheep and cattle or now all out in the fields eating the lovely fresh grass.*

*Sheep and cattle belong to a group of animals called Ruminants*

*Did you find out what is special about ruminants?*

*They have 4 stomachs which is what helps them digest grass*

*The ruminants first stomach, called the RUMEN, is its largest stomach in a cow it will hold 180 litres*

*This stomach has lots of micro-beasts in which digest the grass for the ruminant.*

*The ruminant helps by regurgitating and re-chewing the grass it has already eaten once.*

*This is called 'ruminating' or 'chewing the cud' if you watch ruminants carefully you can see them doing this - they will chew and chew without appearing to take anything in to their mouth - they are re-chewing their last meal!*

*They often do this laid down*

*Once the micro-beasts have digested the grass enough then it continues on to the ruminants other stomach where it and the micro-beasts are digested by the cows digestive system*

*Not a very kind way to treat the micro-beasts which have digested the cows dinner for them!*

*Being able to eat and survive on grass makes Sheep and cattle are very important to farming and food production throughout the world.*

*Grass is an amazing plant which can grow in many places which are not suitable for growing arable crops like wheat, potatoes or peas*

*This means we can still produce food from this land - it is often too steep, too wet or too stony*

*Grazing these areas has have made them like they are and maintains them this way....*

### **Teachers notes**

*The video of the ruminant bugs inside the ruminants stomach where kindly provided by*

*Professor R.J. Wallace B.Sc., Ph.D.,*

*Rowett Institute of Nutrition and Health,*

*University of Aberdeen,*

*The largest of the microorganisms is about 0.15 mm. So, 60 end-to-end in 1 cm. The large pieces are ingested grass.*

### **STRAWBERRIES FOR WIMBLEDON.**

*The tennis fans at Wimbledon often enjoy Strawberries and Cream -*

*Here's how some of the strawberries are produced....*

*We saw the strawberry plants back in January being laid to encourage new growth*

*By February this new growth had started and the old leaves could be removed.....*

*This looks very drastic, but is necessary to remove any pests and disease from last year*

*By March the strawberries are showing lots of new growth*

*The strawberries are sprayed against pests and diseases.*

*The grower also does a clever trick with light to make the strawberries produce their fruit earlier than they normally would.*

Bringing the seasonality of the Countryside and Farm Yard into the Classroom

*The strawberries are given 15 minutes of light every hour to do this, watch these lights go out and the next sections come on.*

*Then just like the tomatoes, bees are put into the glasshouses to pollinate the plants.*

*Once pollinated the plants produce lots of fruit...*

*This fruit is then harvested.... ready for you to enjoy....*

*Look for the red Tractor so you know they are British Strawberries....*

*Next time we will see how the cream to go on your strawberries is made....*