



## Project: Traditional Orchards in the Lower Tees Valley

### POTENTIAL AREAS OF LINKAGE WITH THE PRIMARY CURRICULUM

Science and History are the two main areas of the Primary Curriculum that are supported by the *Traditional Orchards of the Lower Tees Valley* project. The aspects of the Science and History curriculum that link particularly well with this project are highlighted below in the extracts taken from the Primary Curriculum for Key Stages 1 and 2 (<http://curriculum.qcda.gov.uk/key-stages-1-and-2/subjects/index.aspx>). In addition to those highlighted below, there are also some good links to be made between the project and Geography, Citizenship, Personal, Social & Health Education and Art & Design, as well as English and Mathematics.

#### KEY STAGE 1 - SCIENCE

##### Sc 2 Life processes and living things

###### 'Life processes

1. Pupils should be taught:

- a. the differences between things that are living and things that have never been alive
- b. that animals, including humans, move, feed, grow, use their senses and reproduce
- c. to relate life processes to animals and plants found in the local environment.

###### Humans and other animals

2. Pupils should be taught:

- a. to recognise and compare the main external parts of the bodies of humans and other animals
- b. that humans and other animals need food and water to stay alive

- c. that taking exercise and eating the right types and amounts of food help humans to keep healthy
- d. about the role of drugs as medicines
- e. how to treat animals with care and sensitivity
- f. that humans and other animals can produce offspring and that these offspring grow into adults
- g. about the senses that enable humans and other animals to be aware of the world around them.

### **Green plants**

3. Pupils should be taught:

- a. to recognise that plants need light and water to grow
- b. to recognise and name the leaf, flower, stem and root of flowering plants
- c. that seeds grow into flowering plants.

### **Variation and classification**

4. Pupils should be taught to:

- a. recognise similarities and differences between themselves and others, and to treat others with sensitivity
- b. group living things according to observable similarities and differences.

### **Living things in their environment**

5. Pupils should be taught to:

- a. find out about the different kinds of plants and animals in the local environment
- b. identify similarities and differences between local environments and ways in which these affect animals and plants that are found there
- c. care for the environment

## Sc 1 Scientific enquiry

'Teaching should ensure that 'scientific enquiry' is taught through contexts taken from the sections on 'life processes and living things', 'materials and their properties' and 'physical processes'.

### Note

The general teaching requirement for health and safety applies in this subject.

### *Knowledge, skills and understanding*

#### **Ideas and evidence in science**

1. Pupils should be taught that it is important to collect evidence by making observations and measurements when trying to answer a question.

#### **Investigative skills**

2. Pupils should be taught to:

#### **Planning**

- a. ask questions [for example, 'How?', 'Why?', 'What will happen if ... ?'] and decide how they might find answers to them
- b. use first-hand experience and simple information sources to answer questions
- c. think about what might happen before deciding what to do
- d. recognise when a test or comparison is unfair

#### **Obtaining and presenting evidence**

- e. follow simple instructions to control the risks to themselves and to others
- f. explore, using the senses of sight, hearing, smell, touch and taste as appropriate, and make and record observations and measurements
- g. communicate what happened in a variety of ways, including using ICT [for example, in speech and writing, by drawings, tables, block graphs and pictograms]

#### **Considering evidence and evaluating**

- h. make simple comparisons [for example, hand span, shoe size] and identify simple patterns or associations
- i. compare what happened with what they expected would happen, and try to explain it, drawing on their knowledge and understanding
- j. review their work and explain what they did to others'

## KEY STAGE 2 - SCIENCE

### Sc 2 Life processes and living things

*'Knowledge, skills and understanding*

#### Life processes

1. Pupils should be taught:

- a. that the life processes common to humans and other animals include nutrition, movement, growth and reproduction
- b. that the life processes common to plants include growth, nutrition and reproduction
- c. to make links between life processes in familiar animals and plants and the environments in which they are found.

#### Humans and other animals

2. Pupils should be taught:

#### Nutrition

- a. about the functions and care of teeth
- b. about the need for food for activity and growth, and about the importance of an adequate and varied diet for health

#### Circulation

- c. that the heart acts as a pump to circulate the blood through vessels around the body, including through the lungs
- d. about the effect of exercise and rest on pulse rate

#### Movement

- e. that humans and some other animals have skeletons and muscles to support and protect their bodies and to help them to move

#### Growth and reproduction

- f. about the main stages of the human life cycle

#### Health

- g. about the effects on the human body of tobacco, alcohol and other drugs, and how these relate to their personal health
- h. about the importance of exercise for good health.

#### Green plants

3. Pupils should be taught:

#### **Growth and nutrition**

- a. the effect of light, air, water and temperature on plant growth
- b. the role of the leaf in producing new material for growth
- c. that the root anchors the plant, and that water and minerals are taken in through the root and transported through the stem to other parts of the plant

#### **Reproduction**

- d. about the parts of the flower [for example, stigma, stamen, petal, sepal] and their role in the life cycle of flowering plants, including pollination, seed formation, seed dispersal and germination.

#### **Variation and classification**

4. Pupils should be taught:

- a. to make and use keys
- b. how locally occurring animals and plants can be identified and assigned to groups
- c. that the variety of plants and animals makes it important to identify them and assign them to groups.

#### **Living things in their environment**

5. Pupils should be taught:

- a. about ways in which living things and the environment need protection

#### **Adaptation**

- b. about the different plants and animals found in different habitats
- c. how animals and plants in two different habitats are suited to their environment

#### **Feeding relationships**

- d. to use food chains to show feeding relationships in a habitat
- e. about how nearly all food chains start with a green plant

#### **Micro-organisms**

- f. that micro-organisms are living organisms that are often too small to be seen, and that they may be beneficial [for example, in the breakdown of waste, in making bread] or harmful [for example, in causing disease, in causing food to go mouldy].'

## Sc 1 Scientific enquiry

### *'Knowledge, skills and understanding*

#### **Ideas and evidence in science**

1. Pupils should be taught:

- a. that science is about thinking creatively to try to explain how living and non-living things work, and to establish links between causes and effects [for example, Jenner's vaccination work]
- b. that it is important to test ideas using evidence from observation and measurement.

#### **Investigative skills**

2. Pupils should be taught to:

##### **Planning**

- a. ask questions that can be investigated scientifically and decide how to find answers
- b. consider what sources of information, including first-hand experience and a range of other sources, they will use to answer questions
- c. think about what might happen or try things out when deciding what to do, what kind of evidence to collect, and what equipment and materials to use
- d. make a fair test or comparison by changing one factor and observing or measuring the effect while keeping other factors the same

##### **Obtaining and presenting evidence**

- e. use simple equipment and materials appropriately and take action to control risks
- f. make systematic observations and measurements, including the use of ICT for datalogging
- g. check observations and measurements by repeating them where appropriate
- h. use a wide range of methods, including diagrams, drawings, tables, bar charts, line graphs and ICT, to communicate data in an appropriate and systematic manner

##### **Considering evidence and evaluating**

- i. make comparisons and identify simple patterns or associations in their own observations and measurements or other data
- j. use observations, measurements or other data to draw conclusions
- k. decide whether these conclusions agree with any prediction made and/or whether they enable further predictions to be made
- l. use their scientific knowledge and understanding to explain observations, measurements or other data or conclusions
- m. review their work and the work of others and describe its significance and limitations.

## KEY STAGE 1 – HISTORY

### *'Knowledge, skills and understanding*

#### **Chronological understanding**

1. Pupils should be taught to:

- a. place events and objects in chronological order
- b. use common words and phrases relating to the passing of time [for example, before, after, a long time ago, past].

#### **Knowledge and understanding of events, people and changes in the past**

2. Pupils should be taught to:

- a. recognise why people did things, why events happened and what happened as a result
- b. identify differences between ways of life at different times.

#### **Historical interpretation**

3. Pupils should be taught to identify different ways in which the past is represented.

#### **Historical enquiry**

4. Pupils should be taught:

- a. how to find out about the past from a range of sources of information [for example, stories, eye-witness accounts, pictures and photographs, artefacts, historic buildings and visits to museums, galleries and sites, the use of ICT-based sources]
- b. to ask and answer questions about the past.

#### **Organisation and communication**

5. Pupils should be taught to select from their knowledge of history and communicate it in a variety of ways [for example, talking, writing, using ICT].

#### ***Breadth of study***

6. During the key stage, pupils should be taught the Knowledge, skills and understanding through the following areas of study:

- a. changes in their own lives and the way of life of their family or others around them
- b. the way of life of people in the more distant past who lived in the local area or elsewhere in Britain

- c. the lives of significant men, women and children drawn from the history of Britain and the wider world [for example, artists, engineers, explorers, inventors, pioneers, rulers, saints, scientists]
- d. past events from the history of Britain and the wider world [for example, events such as the Gunpowder Plot, the Olympic Games, other events that are commemorated].'

## KEY STAGE 2 - HISTORY

### *'Knowledge, skills and understanding*

#### **Chronological understanding**

1. Pupils should be taught to:

- a. place events, people and changes into correct periods of time
- b. use dates and vocabulary relating to the passing of time, including ancient, modern, BC, AD, century and decade.

#### **Knowledge and understanding of events, people and changes in the past**

2. Pupils should be taught:

- a. about characteristic features of the periods and societies studied, including the ideas, beliefs, attitudes and experiences of men, women and children in the past
- b. about the social, cultural, religious and ethnic diversity of the societies studied, in Britain and the wider world
- c. to identify and describe reasons for, and results of, historical events, situations, and changes in the periods studied
- d. to describe and make links between the main events, situations and changes within and across the different periods and societies studied.

#### **Historical interpretation**

3. Pupils should be taught to recognise that the past is represented and interpreted in different ways, and to give reasons for this.

#### **Historical enquiry**

4. Pupils should be taught:

- a. how to find out about the events, people and changes studied from an appropriate range of sources of information, including ICT-based sources [for example, documents, printed sources, CD-ROMS, databases, pictures and photographs, music, artefacts, historic buildings and visits to museums, galleries and sites]
- b. to ask and answer questions, and to select and record information relevant to the focus of the enquiry.

#### **Organisation and communication**

5. Pupils should be taught to:

- a. recall, select and organise historical information
- b. use dates and historical vocabulary to describe the periods studied

- c. communicate their knowledge and understanding of history in a variety of ways [for example, drawing, writing, by using ICT].

### ***Breadth of study***

6. During the key stage, pupils should be taught the Knowledge, skills and understanding through a local history study, three British history studies, a European history study and a world history study.

### **Local history study**

7. A study investigating how an aspect in the local area has changed over a long period of time, or how the locality was affected by a significant national or local event or development or by the work of a significant individual.

### **British history**

8. In their study of British history, pupils should be taught about:

- a. the Romans, Anglo-Saxons and Vikings; Britain and the wider world in Tudor times; and either Victorian Britain or Britain since 1930
- b. aspects of the histories of England, Ireland, Scotland and Wales, where appropriate, and about the history of Britain in its European and wider world context, in these periods.

### **Romans, Anglo-Saxons and Vikings in Britain**

9. An overview study of how British society was shaped by the movement and settlement of different peoples in the period before the Norman Conquest and an in-depth study of how British society was affected by Roman or Anglo-Saxon or Viking settlement.

### **Britain and the wider world in Tudor times**

10. A study of some significant events and individuals, including Tudor monarchs, who shaped this period and of the everyday lives of men, women and children from different sections of society.

### **Victorian Britain or Britain since 1930**

11. Teachers can choose between a study of Victorian Britain or Britain since 1930.

### **Victorian Britain**

- a. A study of the impact of significant individuals, events and changes in work and transport on the lives of men, women and children from different sections of society.

## Britain since 1930

- b. A study of the impact of the Second World War or social and technological changes that have taken place since 1930, on the lives of men, women and children from different sections of society.

### A European history study

12. A study of the way of life, beliefs and achievements of the people living in Ancient Greece and the influence of their civilisation on the world today.

### A world history study

13. A study of the key features, including the everyday lives of men, women and children, of a past society selected from: Ancient Egypt, Ancient Sumer, the Assyrian Empire, the Indus Valley, the Maya, Benin, or the Aztecs.'

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