

School Tree Nursery Project



Big Trees by Paul Cezanne

Tree Nursery Project

This project briefing is the result of the School Tree Nursery Pilot project which was run by the Monmouthshire Forest Education Initiative cluster group. It involved 3 schools in Monmouthshire, and numerous other members of the cluster group. The project ran over the 2003/4 school year. Contact details of participating bodies are listed in the appendix. All those involved in the pilot would like to thank the Forest Education Initiative Partnership fund, Monmouthshire County Council, and the schools involved who enabled the project to happen along with the authors of this report – Anna Spokes and Nicola Balkwill.

Introduction

The aim of this long-term project is to establish and maintain a tree nursery within your school environment. This could be the basis to create school woodlands.

The suggested activities are carried out in Years 4 and 5 within a rolling programme, giving the children ownership and awareness of the school environment and the potential of the outdoors.

It supports many areas of the curriculum especially Science, I.C.T, Mathematics and P.S.E.

Objective

To grow and maintain trees, in a school environment, as a learning resource.

The processes to meet this objective include:

- Seed gathering
- Seed planting
- Sapling planting
- Tending
- Loosening ties and checking stakes
- Clearing
- Ownership (long term maintenance)

What are the Benefits for your School?

- To extend learning experiences to the outdoors.
- To give pupils ownership of their school environment.
- For pupils to appreciate their local surroundings.

- To provide an exciting and alternative approach to teaching and learning.
- To encourage wildlife into the heart of your school.

Planting trees is a stimulating and fulfilling project that involves pupils creating a better environment for the whole school community.

Seed Gathering – Year 4

- Date:** October (*look out for Seed Gathering events, usually the second Sunday in October*)
- Activity outline:** Using your local area identify indigenous tree species. Examples collected in the two sample schools (ARW Portskewett and Shirenewton) were oak, ash, sycamore, rowan, beech, birch, maple, hawthorn and hazel.
- In class discuss types of trees that will be planted. Show examples of seeds that they will be looking for and identify using secondary resources.
 - Take the class to a wooded area close to the school to enable them to collect seeds. Bags for seed gathering can be obtained from the Tree Council.
 - The quality of acorns should be checked by placing them into water. Poor quality acorns will float to the surface.
- Differentiation:** The sample schools both found that pupils of lower academic ability often excelled in this activity.
- Resources:** The following can be obtained from the Tree Council:
- Bags for seed collection
 - Seed Gathering Chart
 - The Good Seed Guide (fee payable)
 - Posters and postcards (fee payable)

Seed Planting – Year 4

Date: Follow on from seed gathering.

Activity outline: Using the drinks cartons available or plant pots, demonstrate how to plant each type of seed.

- Each child needs to label their containers.
- The children should fill their container with suitable compost.
- Each child should plant a variety of seeds as well as an acorn if possible.
- Water carefully and place in a suitable, designated indoor area where the children have regular access to observe and tend.
- Water regularly

Differentiation: Teacher support if necessary.

Resources: Drinks cartons for seed planting are available from The Alliance for Beverage Cartons and the Environment.

Suitable compost



Sapling Planting – Year 5

- Date:** After the frost (April)
- Activity outline:** During March/April the saplings that have grown from the seeds that have been kept indoors since October need to be planted in a tree nursery.
- A suitable area in the school grounds needs to be chosen. (Access to water should be considered at this point.)
 - A tree nursery should be constructed. Chicken wire should help to protect the saplings.
See photograph on previous page.
 - The ground in the tree nursery needs to be dug over and prepared with fresh soil if necessary.
 - The children should then plant their saplings within identified rows starting at the furthest end of the nursery.
 - These need to be watered carefully.
 - Regular checks, watering and weeding are vital.
- Differentiation:** Mixed ability groupings are recommended. This is an opportunity to raise self-esteem for those who maintain and care for their saplings.
- Resources:** Tree nursery – chicken wire, posts and appropriate tools.
Fresh soil
Spades, hand tools and watering cans.

Relocating Trees from the Nursery – Year 5

Date: March

Activity outline: A new permanent site needs to be identified where the trees will grow and become established. Adequate space should be a consideration, as the saplings need to be planted approximately 3metres diagonally apart.

- The saplings in the tree nursery planted in the previous year now need to be carefully lifted.
- Care needs to be taken not to damage the root system during transportation to the new site.
- Demonstrate how deep and wide to dig the hole (approximately 30cm depth x 40cm wide).
- Children need to dig the holes and prepare for planting.
- Insert the stake into the centre of the hole prior to positioning the sapling.
- At this stage it is recommended that the children work in pairs. The sapling needs to be placed upright alongside the stake without damage to the roots.
- The hole needs to be refilled with soil, removing any stones or grass.
- Press firmly using hands, around the base of the sapling to compact the soil.
- Using the stakes, attach ties to support the saplings.

- It is recommended that plastic spiral or mesh guards are used to protect the trees from animal damage.
- Allow the children to write names on plastic tags using permanent marker pen. Attach to sapling.
- Finally water them well.

Differentiation:

Mixed ability pairing

Resources:

Spades and hand tools
Bamboo canes for staking
Plastic ties
Plastic spiral or mesh guards
Plastic tags
Permanent marker pen
Watering cans



TLC – Year 5

Date: March

Activity Outline: Young trees need TLC – Tending, Loosening of ties and Clearing of grass and weeds.

- The children need to revisit any trees that have been planted on the permanent site to undertake TLC.

Tending

- Remove any broken or dead branches.
- For a future tree with a single straight trunk, select the strongest shoot and shorten or remove any others, which might compete with it.
- Check the base of the tree for any gaps in the soil caused by swaying, and fill these in.
- If there are any signs of disease, get further advice.

Loosening ties and checking stakes.

- If the tie is too tight, loosen to prevent it damaging the tree. Make sure you can slide a finger in between the tree and the tie.
- Decide if a stake is still needed. (A healthy tree should only need a stake for up to two years, if at all.)

Clearing

Remove all grass and weeds for at least 0.5m radius around each tree. Do this by:

- Mulching – to ensure moist soil, cover cleared area around base with bark or composted woody material.
- Regularly pull up grass and weeds by hand.

Differentiation:

Paired work with supervision and support.

Resources:

Hand clippers for removal of grass and weeds

Mulching material

Spades for spreading material

National Curriculum Links

It is possible to cover the following KS2 objectives during the course of the project.

Science

Scientific Enquiry

- 1.1 To apply their ideas and knowledge and understanding of science.
- 1.2 To consider information obtained from their own work and other sources, on some occasions.
- 1.3 To know that scientific ideas can be tested by means of information gathered from observation and measurement.
- 2.1 Pupils will report their work clearly in speech and writing.
- 2.2 They will use a range of methods to record and present information, eg drawings, diagrams, graphs and tables.
- 2.3 Where appropriate they will use ICT to present information.
- 2.4 They will use standard measures.
- 3.8 Pupils will make careful observations and measurements and record them.
- 3.9 They will use IT equipment and software to monitor changes.

Life Processes and Living Things

- 1.2 Pupils will know that there are life processes common to plants.
- 3.1 Pupils will investigate the effect on the growth of plants.
- 3.4 Pupils will identify the main stages in the growing cycle of trees.
- 3.5 Pupils will learn how pollen and seeds can be transported.
- 4.1 They will find out about the variety of trees found in the local area.
- 4.5 Pupils will know how locally occurring trees can be identified and grouped by making and using keys.

Information Communication Technology

- 1.1 Pupils will use ICT equipment and software to communicate, share and exchange ideas and information in a variety of forms.

Mathematics

Using and Applying Mathematics

- 1.1 Pupils will know how to select and use the appropriate mathematics and materials.
- 2.2 Pupils will use diagrams, graphs and tables.
- 3.2 Pupils will be able to make general statements of their own based on their evidence.

Shape, Space and Measure

- 3.1 Pupils will choose appropriate standard units of length and time.
- 3.2 Pupils will choose and use appropriate measuring instruments.

Handling Data

- 1.2 Pupils will collect and represent data using graphs and diagrams, using a computer where appropriate.
- 1.3 Pupils will draw meaningful conclusions from graphs (extension).

Personal and Social Education

Attitudes and Values

8. Pupils enjoy and value learning, success and achievements and be willing to persevere.
9. Pupils will be curious and inquisitive and have a sense of wonder and natural phenomena.

Skills

1. Pupils will listen carefully, question and respond to others.
12. Pupils develop practical skills.

Knowledge and Understanding

Environmental 1

Pupils know how the environment can be affected by human activity.

Key Skills and Common Requirements

The following Key Skills and Common Requirements can be achieved through the suggested project activities.

Communication

Mathematical

Information Technology

Problem Solving

Personal and Social Education

Curriculum Cymreig

Health and Safety

It is recommended that Local Education Authority health and safety guidelines are followed when conducting the practical activities.

Examples of hazards to be aware of:

Seed Gathering	Close supervision due to setting such as open areas, fences and gates
	Uneven ground
	Picking up and touching unfamiliar plants
	Avoid touching own and others facial features
	Washing hands at end of activity
Seed Planting	Avoid touching own and others facial features
	Washing hands at end of activity
Sapling Planting	Safe use of tools
	Sensible handling of saplings
	Avoid touching own and others facial features
	Washing hands at end of activity
Relocation	Safe use of tools
	Suitable clothing and footwear

Sensible handling of saplings and associated equipment

Avoid touching own and others facial features

Washing hands at end of activity

T.L.C.

Safe use of tools

Sensible handling of equipment

Avoid touching own and others facial features

Washing hands at end of activity

Useful Contacts and information

Tudor Morgan – Coed Cymru Officer
Wentwood Timber Centre
Old Commission Offices
Wentwood
Caldicot
NP26 3AZ
01633 400720

Forest Education Initiative
Lucy Kirkham
C/O Forestry Commission
Cantref Court
Brecon Road
Abergavenny
NP7 7AX
01873 852015

Forest Schools for Monmouthshire Project Co-ordinator
Rachel Smith
C/O Forestry Commission
Itton Forest Office
Itton
Chepstow
NP16 6BZ

Archbishop Rowan Williams Church-in-Wales Primary School
Anna Spokes
Crick Road,
Portskewett
Caldicot
Monmouthshire
NP26 5UL

Shirenewton Primary School
Nicola Balkwill
Shirenewton
Chepstow
Monmouthshire
NP16 6RN
01291 641774

Mounton House School
Paul Noble
Pwllmeyric
Chepstow
Monmouthshire
NP16 6LA

The Tree Council
51 Catherine Place
London
SW1E 6DY
0207 8289928
www.treecouncil.org.uk

The Alliance for Beverage Cartons and the Environment
Churcham House
1 Bridgeman Road
Teddington
Middlesex
TW11 9AJ
0208 9776116
www.drinkscartons.com

Tree Advice Trust
Alice Holt Lodge
Wrecclesham
Farnham
Surrey
GU10 4LH
0897 161147 (calls £1.50/minute)

Forest Enterprise Wales
www.forestry.gov.uk

Forest Education Initiative
www.foresteducation.org

