

Farm Links: Orchards

Using orchards as a learning resource



As you progress with your Food for Life awards and are looking for ways to develop your Farm Links work, this pack supports you in using a local orchard as a place to visit to enable learning around local, healthy food.

This pack:

- Provides a structure to encourage schools to visit an orchard as part of their Food for Life Farm Links work
- Provides some activities that are applicable to any orchard setting (and school grounds)
- Provides links to external resources to support learning and provide practical advice about orchards back at school (e.g. how to plant fruit trees; pruning advice)
- Links to other aspects of Food for Life – growing activities and appropriate cooking recipes



Activities are grouped into the season(s) within which they are appropriate, and there is a selection of activities that are appropriate all year round.

Spring
Summer
Autumn
Winter
All year round

'The orchard' can refer to either an orchard you are visiting or an orchard in your school grounds.

How to use this resource

This resource is designed to support learning in orchards during any season so that a visit to an orchard can easily be incorporated into your programme of farm visits.

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Spring



Activity		Curriculum links	Resources / Information
Planting	<p>Using your plans from the autumn (see Autumn – Planning)</p> <p>Opportunity to link to a community event / Grandparent gardening fortnight for help and support with this.</p>	<p>Science</p> <p>Yr2 & Yr3 Plants: find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p> <p>Yr3 Plants: explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant</p>	<p>Spades; trowels; stakes and ties</p> <ul style="list-style-type: none"> • Leicestershire Heritage Apple Project - www.suttonelms.org.uk/apple74.html Information about and supply of local varieties of apple trees. • Advice from Garden Organic - www.gardenorganic.org.uk/fruit-growing • Advice from Woodland Trust (plant bare-root trees from mid-November – March and potted trees any time): www.woodlandtrust.org.uk/plant-trees/advice/how-to-plant/
Grafting	<p>Grafting is a form of propagating new fruit trees using buds or twigs. The 'scion wood' (cutting) from an existing tree is fused onto a branch or stem of another tree – the 'rootstock'.</p> <p>It is a way of getting new fruit trees for a fraction of the cost of new trees from a nursery.</p> <p>Pupils observe grafting at the local orchard (typically done in April and May).</p> <p>By sampling fruit from the local orchard at harvest time (see Tasting – Autumn), pupils could then vote on their favourite varieties and return to collect cuttings (scions).</p>	As for Planting	<ul style="list-style-type: none"> • The Orchard Project – guidance on how to graft www.theorchardproject.org.uk/guides_and_advice/how-to-graft-fruit-trees/

Photograph by Nigel Deacon



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Spring



Activity		Curriculum links	Resources / Information
Mulching (late spring)	<p>This will improve the quality of the soil around the fruit trees, keep down weeds and help to retain moisture in the soil during the summer.</p> <p>Pupils work alongside orchard owner or Teacher to add mulch to the base of fruit trees in the orchard, taking care not to pile the mulch up against the tree trunks.</p>	As for Planting	<p>Suitable biodegradable mulch such as compost, leaf mould or wood chippings</p> <p>Spades/trowels.</p> <ul style="list-style-type: none"> Advice from RHS on mulching- www.rhs.org.uk/Advice/Profile?PID=323
Bug hotels	<p>To encourage beneficial insects to the orchard (see Fruit Goodies and Baddies – Summer), pupils can make habitats for them to over-winter in.</p> <p>(Also possible to do in Summer & Autumn)</p>	<p>Science</p> <p>Yr2: All living things and their habitats</p> <p>Yr 3: Plants</p> <p>Yr4: Identifying and naming plants and animals</p> <p>Yr5: Animals - lifecycles</p>	<ul style="list-style-type: none"> See The Orchard Project's lesson plans for Years 2&3: https://www.theorchardproject.org.uk/wp-content/uploads/LessonPlan_Habitats_BugHotels_Y2_Y3.pdf Years 4&5: https://www.theorchardproject.org.uk/wp-content/uploads/LessonPlan_Pollinators_BugHotels_Y4_Y5-1.pdf



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Summer



Activity	Details	Curriculum links	Resources
Minibeast hunting	<p>Look closely at the fruit trees to see what lives on them (a comparison can be made between different types of fruit tree and/or between what lives on the school's fruit trees and on those at the orchard you visit).</p> <p>If there are hedgerows at the orchard, you can extend this activity to a broader habitat study.</p>	<p>Science</p> <p>KS1 Working scientifically: Observing closely: plants; Using simple equipment: magnifying glasses & pots Performing simple tests: comparing plant species in different habitats Identifying and classifying: Photographing species; Using simple keys Gathering and recording data to help in answering questions: tallying species Yr2: All living things and their habitats Yr4: Identifying and naming plants and animals Yr6: Classification / adaptation</p>	<p>Magnifying pots / pooters; 1m² pieces of old white sheet; identification charts</p> <ul style="list-style-type: none"> • (see Field Studies Council – Fold Out Guides)



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Summer



Activity	Details	Curriculum links	Resources
Waggle dance game (orchard or school hall)	Waggle dance game – a game to reinforce that bees collect pollen and nectar from flowers	Science Yr3 Plants Identify and describe the functions of different parts of flowering plants; Explore the part that flowers play in the life cycle of flowering plants, including pollination... Yr5 All living things Describe the life process of reproduction in some plants and animals.	See Friends of the Earth Bee Cause pack for educators p22 Pictures of flowers; a mat for each team to represent the bees' nest
Pollen game (orchard or school hall)	Pollen game – this follows on from the waggle dance game to reinforce that flowers turn into seeds once pollinated	As for Waggle dance game	See Friends of the Earth Bee Cause pack for educators p23 Pupils in teams on mats (as above)
Fruit Goodies and Baddies	A game to demonstrate the role beneficial insects play in protecting fruit from pest damage	Science Yr2 All living things and their habitats	See Fruit Goodies and Baddies game

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Autumn



Activity	Details	Curriculum links	Resources
Planning your school orchard	<p>Use Google Maps to print off an aerial view of your school grounds.</p> <p>Identify and record the orientation of school grounds using a compass.</p> <p>Research what fruit trees need to grow well (sunny position / shade / shelter from wind?)</p> <p>Discuss all uses of the school ground. In groups, ask pupils to consider a suitable location for the chosen number of fruit trees, taking into account other uses of the grounds and the trees' needs.</p> <p>Potential link – Maths – scale of map / spacing between trees</p>	<p>Geography</p> <p>KS1 Geographical skills and fieldwork</p> <p>Use simple compass directions; use aerial photographs..; devise a simple map; and use and construct basic symbols in a key; use simple fieldwork and observational skills to study the geography of their school and its grounds...</p> <p>KS2 Geographical skills and fieldwork</p> <p>Use the eight points of a compass...; use fieldwork to observe, measure and record the human and physical features in the local area using a range of methods...</p>	<p>Internet access – Google Maps; Compass; print offs of aerial view of school grounds</p> <ul style="list-style-type: none"> • Woodland Trust offer free trees for schools and communities. However, please note these packs are themed and do not contain fruit trees such as apple, pear or plum and have a minimum of 30 trees. • Leicestershire Heritage Apple Project – www.suttonelms.org.uk/apple74.html Information about and supply of local varieties of apple trees.



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Autumn



Activity	Details	Curriculum links	Resources
Mapping the orchard you visit	<p>Use Google Maps to print off an aerial view of the orchard you visit (the orchard owner may be able to provide this or help you with it).</p> <p>Identify and label the trees as you mark them on the map.</p>	<p>As for Planning your school orchard <i>plus</i></p> <p>Science Yr1 Plants Identify and name a variety of common plants...</p>	<p>Internet access – Google Maps; Compass; print offs of aerial view of orchard</p>
Mulching (late autumn)	<p>This will improve the quality of the soil around your fruit trees, keep down weeds and help to retain warmth in the soil during the winter.</p> <p>Pupils work alongside orchard owner or Teacher to add mulch to the base of fruit trees in the orchard, taking care not to pile the mulch up against the tree trunks.</p> <p>It is also an opportunity to check below the graft for any shoots, as they will need to be pruned away.</p>	<p>Science Yr2 & Yr3 Plants</p>	<p>Suitable biodegradable mulch such as compost, leaf mould or wood chippings</p> <p>Spades/trowels.</p> <p>See RHS advice on mulching</p>
Harvesting	<p>Work in groups to collect fruit from branches in reach and to shake branches and catch fruit higher up.</p>	<p>Design and technology</p> <p>KS1 Cooking and nutrition Understand where food comes from.</p> <p>KS2 Cooking and nutrition Seasonality</p>	<p>Old pieces of sheet</p>

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Autumn



Activity	Details	Curriculum links	Resources
Tasting	<p>Collect different varieties of apple from the orchard you visit, your school orchard and/or from pupils' family gardens.</p> <p>Chop up and taste the different varieties, creating graphs / tally charts to record the most popular, texture, taste, colour, size etc.</p> <p>A cutting to graft (see Grafting – Spring) onto one of your school trees could be requested from the most popular apple tree(s).</p>	<p>As for harvesting.</p> <p>Maths</p>	<p>Apples, knife and plates</p>
Cooking with your harvest	<p>Cooking using fruit from the orchard can be tied into a School Farmers' Market where produce can be sold to parents and your community. See School Farmers' Markets</p> <p>Plan an Apple Bake Off as part of your Apple Day celebrations (see below)</p>	<p>Design and technology</p> <p>Cooking and nutrition</p> <p>KS1 Understand where food comes from.</p> <p>KS2 Seasonality</p> <p>KS1 & KS2 Use the basic principles of a healthy and varied diet to prepare dishes</p>	<p>See recipes:</p> <ul style="list-style-type: none">• Apple Galettes• Apple Salad• Blackberry and Pear Bumble

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Autumn



Activity	Details	Curriculum links	Resources
Apple Day	Celebrate harvest and orchards by planning an Apple Day. This can be part of another event such as a School Farmers' Market or stand-alone. It is an opportunity for pupils to share their learning, produce and cooking with parents and the wider community.		See separate 'Apple Day Ideas' doc
Wassailing	Join in or create your own wassailing event to awake the (cider) apple trees and scare away evil spirits! Look at the poetry associated with wassailing in different parts of Southern England.	Literacy Aims: appreciate our rich and varied literary heritage Spoken language: participate in...performances Reading – Comprehension Yr1-6 develop pleasure in reading, motivation to read, vocabulary and understanding by: listening to and discussing (and expressing views about) a wide range of poems, ...	https://en.wikipedia.org/wiki/Apple_Wassail www.historic-uk.com/CultureUK/Wassailing/
Earth as an apple	Using an apple to represent the earth, show how much topsoil the population has to grow with.		https://canolaeatwell.com/earth-as-an-apple/ www.youtube.com/watch?v=7KSoc_HQdEo
Apple science	Use some of your apples to demonstrate science experiments	Science -Yr5 Properties and changes of materials	https://littlebinsforlittlehands.com/erupting-apple-science-baking-soda-fizzy-activity/ https://littlebinsforlittlehands.com/apple-science-lemon-juice-experiment-fall-stem/

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Winter



Activity	Details	Curriculum links	Resources
Pruning	<p>November – March (dormant period) - NOT STONE FRUIT TREES - to encourage more growth</p> <p>Spring / Summer - stone fruit trees -prune before or after flowering, otherwise they are susceptible to Silverleaf</p> <p>Summer – prune to encourage better growth rather than more growth. It enables the tree to produce more fruit and less wood, reduces shade and better flavour in the fruit.</p>	As for Planting (see Spring)	<p>Sharp secateurs</p> <ul style="list-style-type: none"> See The Orchard Project’s lesson plan for pruning: www.theorchardproject.org.uk/wp-content/uploads/LessonPlan_ClassWork_Pruning_ErnstCook-3.pdf See People’s Trust for Endangered Species for fruit tree pruning guidance: https://ptes.org/campaigns/traditional-orchard-project/orchard-practical-guides/pruning/ <p>General tree care advice from Woodland Trust: www.woodlandtrust.org.uk/plant-trees/advice/caring/</p>



Farm Links: Orchards

All year round



Activity	Details	Curriculum links	Resources
Colour palettes	<p>Focus pupils on the different colours of the orchard / hedgerows.</p> <ul style="list-style-type: none"> • What colours do they expect to find? • Would they find the same colours if they visited in spring / summer / autumn? <p>Challenge them to find as many colours as possible. Ensure they take small (caterpillar-bite size) samples of each colour they find and that they don't pick wild flowers.</p>	<p>Science Yr1 Seasonal changes: observe changes across the four seasons; observe and describe weather associated with the seasons and how day length varies.</p>	<p>Strips of card with wide double-sided sticky tape* down the middle (one per pupil)</p> <p>*Pritstick is sufficient and a cheaper / quicker alternative, although not always as effective</p>
Mapsticks (or Journey sticks)	<p>Focus pupils on natural materials around the orchard that interest them and remind them of its features e.g. apple tree leaf, fallen bark.</p> <p>Wrap found materials onto the stick by winding the attached string around the stick to hold materials on.</p> <p>These found materials can be used back in school to create a multi-media map of the orchard and to trigger memories of the pupils' experiences.</p> <p>NB. This is appropriate dexterity-wise for Yr2 upwards.</p>	<p>Art & Design</p> <p>KS1: to use a range of materials...; to develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space KS2: to increase their proficiency in the handling of different materials</p>	<p>Lengths of cane / sticks approx. 30cm long (one per pupil)</p> <p>Attach a piece of string the same length as the cane / stick to one end using strong tape</p>

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All year round



	Details	Curriculum links	Resources
	<p>Stop at appropriate points around the orchard. Ask pupils to close their eyes and listen.</p> <ul style="list-style-type: none"> • What can they hear and can they identify it? <p>If using card or maps, invite pupils to record what they hear, creating marks to represent the sound, or drawing what it was they heard. Mark a dot in the middle of the card or on the map to represent where they are standing.</p>	<p>Art & Design</p> <p>KS1: to use drawing, ... to develop and share their ideas, experiences and imagination</p>	<p>Optional: Photocopies of a map of the orchard (if available) or blank pieces of card, approx. A6 (one per pupil); pencils</p>
	<p>Focus pupils on the detail of the fruit trees and nature around them. Find an area where they can access numerous fruit trees and remain in view. Ask them to decide upon (in pairs) their favourite piece of natural artwork, using the card window to frame it – perhaps a close-up of a knot in a tree or the blossom on a cherry tree. Record these to take back to class and if time allows, visit each piece of natural artwork, inviting pupils to say why they chose it and for comments from others.</p>	<p>Literacy</p> <p>(Pupils) are competent in the arts of speaking and listening, ...demonstrating to others...</p>	<p>Approx. A5 size pieces of card (one per pair min.) with window cut out</p>



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Other useful links:

The Orchard Project

Primary School Activities –

https://www.theorchardproject.org.uk/guides_and_advice/primary-school-activities-lesson-plans-ernest-cook-trust/:

- Making Apple Juice
- Making Dried Apple Rings
- Pruning Lesson Plan
- Fruit thinning Maths
- Lifecycles and Food chains
- Apples of the British Isles

Primary School Lesson Plans –

https://www.theorchardproject.org.uk/guides_and_advice/school-resources/:

- Apple Bobbing and Creative Writing;
- Apple Tasting and Orchard Explorers;
- Habitats and Bug Hotels;
- Minibeasts, Habitats and Soil;
- Orchard Art: Leaf and Bark Rubbings;
- Orchard Art: Clay Faces;
- Plant Lifecycles (June to October);
- Pollinators and Bug Hotels;
- Tree Care
- Tree Care Signs



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Leicestershire Heritage Apple Project - <http://www.suttonelms.org.uk/apple74.html>
Information about and supply of local varieties of apple trees plus events / courses

National Fruit Show – A year in the life of an apple (KS2 resource) -
<https://nationalfruitshow.org.uk/nfs-education>, including curriculum links, jobs to do throughout the year, new words, apple facts

People's Trust for Endangered Species -
<https://ptes.org/get-informed/education-resources/>

Links to poetry

- Apples by Laurie Lee

Links to literature

- [A Fruit Is a Suitcase for Seeds](#) – By Jean Richards
- [Apples, Cherries, Red Raspberries](#) – By Brian Cleary

