

Fruits and seeds and how they are dispersed . . . some ideas to explore for KS2

This is an exercise which I have used successfully with Year 2, 3 and 4 pupils to help them link special characteristics of fruits and seeds with the way in which they are dispersed.

It is essential right at the beginning of the exercise to stress that fruits which birds and other animals enjoy eating may be very poisonous to humans. Nothing must be eaten without the permission of the adult in charge.

The Field Studies Council (FSC) Folding Card 'A guide to fruits and seed dispersal' can be used to help with identification. An example of photocopyable drawings and a suggested questionnaire are given here.

Divide the pupils into small groups. Collect common local fruits, with a different one for each group and preferably each with a different dispersal mechanism. Spread out the fruits on chairs or stools in the garden or classrooms. Give each group a drawing of one of the fruits and ask the pupils to match the drawing with the correct fruit. Let the group examine the fruit carefully and, with help, fill in the questionnaire over the page. Each group tries to decide how the fruit or seed might be spread around.

Ask each group to explain how they think their fruit is dispersed, picking out important features - for example, the wind dispersed fruits are very tiny or have wings or parachutes. Let each group of pupils choose a name relevant to the dispersal mechanism of their fruit (e.g. the pepperpots), and which helps them remember the important features.

During a short walk in local fields and woods the pupils can look for more fruits and seeds. For each fruit or seed they find let them look at its characteristics, then with help from the teacher they can decide which dispersal group it should belong to.

Turn over to page 2 to see a picture of a fruit. You can use this as an example to get your pupils started. Then page 3 is photocopyable and gives a set of questions for your pupils to answer when looking at their fruits and seeds.

Dr Anne Bebbington
Field Studies Council, Juniper Hall

The FSC Folding card - A Guide to Fruits and Seed Dispersal

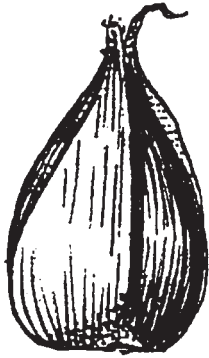
The FSC Folding card has been written primarily to help teachers and pupils identify seeds and fruits and put them into groups according to their dispersal mechanism. In the FSC card, the main dispersal groups are identified and examples of seeds and fruits showing the special features of each group are illustrated and described.

Space does not allow all common fruits to be included but those chosen illustrate different features and should be relatively easy to find throughout Britain.

Additional information about seeds and seed germination and some teaching exercises will be available on the SAPS website (after November 2002). You will find worksheets that you can download and ideas to link to experiments investigating seeds and seed germination. All the illustrations on the fruits and seeds folding card will be on the SAPS website and these can easily be made into more worksheets that you can use with your pupils.

SAPS is pleased to have this opportunity to link with FSC in the presentation of this material.

BEECH



Artwork © Anne Bebbington

Look carefully at your fruit and see if you can answer the questions opposite.

Look at your fruit carefully and answer the following questions.

Do the fruits or seeds have hooks?

If you can't see them, do a bit of detective work - see if they cling to your jumper.

Do the fruits or seeds have a parachute of hairs?

Do the fruits or seeds have wings?

What colour is the fruit?

Is the fruit shiny?

Is the fruit or seed juicy?

Squeeze it to find out. Don't try and eat it - it may be poisonous.

How do you think the seeds of your plant are spread around?

National curriculum links on the SAPS website

Your quick guide to activities with plants for KS1 and KS2 . . .

This 'Quick Guide' has been developed to help you find suitable activities, related to specific National Curriculum topics. Using this guide, you can choose your curriculum topic, and then see the range of material that is relevant to this topic. When you do this on the SAPS *website*, you can follow the hotlinks direct to different worksheets or articles . . . and plenty more ideas to use in your teaching.

In *OSMOSIS* 22 we gave you KS1 links, so now we give you KS2 links. When new activities are added, we will update the links.

Your KS2 links

Life processes and living things		Practical activities on the SAPS website
SC2 section	Pupils should be taught:	
1. Life processes	b) that the life processes common to plants include growth, nutrition and reproduction	<ol style="list-style-type: none"> 1. Growing radishes in film cans - <i>Osmosis 7</i> 2. Life cycle of the flowering plant 3. Doubling and dabbling in duckweed - <i>Osmosis 5</i>
3. Green plants	a) effect of light, air, water and temperature on plant growth	<ol style="list-style-type: none"> 1. Growing radishes in film cans - <i>Osmosis 7</i> 2. Propagator for small plants & seedlings - <i>Osmosis 14</i> 3. Instructions for growing fast plants - <i>Student Sheet 1</i> 4. The response of seedlings to light - <i>Osmosis 6</i> 5. Doubling and dabbling in duckweed - <i>Osmosis 5</i>
	b) role of the leaf in producing new material for growth	
	c) that the root anchors the plant, and that water and nutrients are taken in through the root and transported through the stem to other parts of the plant	<ol style="list-style-type: none"> 1. Can you make a root of a plant move through a maze? - <i>Osmosis 22</i>
	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 <i>Flower parts - see 1 to 5</i> <i>Pollination - see 6 to 7</i> <i>Seed dispersal - see 8 to 9</i> <i>Germination - see 10 to 11</i>	<ol style="list-style-type: none"> 1. A model <i>Brassica</i> flower - <i>Osmosis 13</i> 2. Instructions for growing fast plants - <i>Student Sheet 1</i> 3. Exploring a horse chestnut bud - <i>Osmosis 17</i> 4. Exploring horse chestnut flowers - <i>Osmosis 19</i> 5. Primary numbers in plants. Pt 1 Amaryllis flowers - <i>Osmosis 15</i> 6. Making bee sticks - <i>Student Sheet 2</i> 7. 'Zum zum' or 'Buzz buzz' - <i>Osmosis 6</i> 8. Merry's ears - <i>Osmosis 9</i> 9. Wild oats on the move - <i>Osmosis 9</i> 10. Investigating seed germination - <i>Osmosis 3</i> 11. <i>Brassica gigantea</i>, a model seed - <i>Osmosis 6</i>
4. Variation and classification	b) how locally occurring . . . plants can be identified and assigned to groups	
	c) that the variety of plants . . . makes it important to identify them and assign them to groups	<ol style="list-style-type: none"> 1. Differences between species: - <i>Osmosis 16</i>
5. Living things in their environment	b) about the different plants . . . found in different habitats	<ol style="list-style-type: none"> 1. Dandelions - across the curriculum at KS2 - <i>Osmosis 17</i> 2. Supermarket science - portable ponds - <i>Osmosis 7</i> 3. Supermarket science - making an eco-column - <i>Osmosis 1</i> 4. Doubling and dabbling in duckweed - <i>Osmosis 5</i>
	c) how . . . plants in two different habitats are suited to their environment	<ol style="list-style-type: none"> 1. Dandelions - across the curriculum at KS2 - <i>Osmosis 17</i> 2. Supermarket science - portable ponds - <i>Osmosis 7</i> 3. The amazing concertina cactus - <i>Osmosis 12</i> 4. The amazing concertina cactus - <i>Article</i>
	e) how nearly all food chains start with a green plant	<ol style="list-style-type: none"> 1. Supermarket science - making an eco-column - <i>Osmosis 1</i> 2. Aphid isolation tower - <i>Osmosis 4</i>