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| **Session 1: Spreading Seeds Part 1** |
| Science curriculum area **(2P):** | **Plants (2P)**i. observe and describe how seeds and bulbs grow into mature plantsIi. find out and describe how plants need water, light and a suitable temperature to grow/stay healthy |
| Working Scientifically (**KS1 WS**) | **Working Scientifically (KS1 WS)** i) asking simple questions and recognising that they can be answered in different waysii) observing closely, using simple equipmentiii) performing simple testsiv) identifying and classifyingv) using their observations and ideas to suggest answers to questionsvi) gathering and recording data to help in answering questions |
| Teaching Objectives | * To consider seed development and dispersal and generate questions about plant growth.
* To create and test a seed helicopter.
* Make a seed helicopter and try it out in the playground
* To examine dandelion plants using a magnifying glass.
* To make a dandelion seed each and form together to make a dandelion plant.
* To use scientific vocabulary such as: seed, disperse, wind, pollination.
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| Key Vocabulary: seed, disperse, wind, pollination |
| ResourcesSeed dispersal resource, How to make a Helicopter Seed and a Dandelion Seed model, card, paper clips, scissors, cotton buds, modelling putty or foam clay, art straws, different seeds, fruits and flowers, magnifying glasses, sketchbooks, 'Travelling Seeds' and 'Bees Like Flowers' by Rebecca Bielawski, 'The Tiny Seed' by Eric Carle. | Weblinks<http://www.kidsdiscover.com/parentresources/seed-dispersal/> - *Simple information for teachers on seed dispersal.* |
| Before the session: Collect different seeds, fruits and flowers and place on the tables (grapes with pips, a sunflower head of sunflower seeds, orange with pips, avocado cut in half, pumpkin seeds, apple pips, etc.). Whole class: Ask the class to come in and look at the different seeds, etc. on the tables. Remind them not to put them in their mouths, but to look carefully and talk to each other about what they can see. Have sketchbooks and magnifying glasses set out to enable chn to examine the detail. Then ask the chn to share observations and conclusions about the different things on their tables. Together, sort the different organic things into fruits, seeds and flowers. *What is important about these kernels, seeds, pips which are found inside fruits? What is their job?* Talk to the chn about what happens when you plant these things in the right sort of soil and what they grow into. Ask the chn: *What do we already know about seeds and how they grow into plants?* Write different experiences, facts and ideas down for displaying in the classroom. Read the chn these books: 'Travelling Seeds' and 'Bees Like Flowers' by Rebecca Bielawski. Talk to chn about the importance of pollen being dispersed by the bees and insects. (Plants produce flowers to make seeds. To make a seed a flower must be pollinated. Pollen from the male part of one flower travels to the female part of another flower where the seeds are made. The petals act like an advertisement to attract various animals, which will carry the pollen from one flower to another. The flowers turn into fruiting bodies which protect the seeds.) Ask: *Can you think of different ways that a plant could get its seeds dispersed?* (Through animals eating them, by sticking to animals, by being blown by the wind, or floated off by water or by bursting open or gravity.) The chn may come up with their own ideas, but write Blowing, Eating, Exploding, Floating, Falling, and Sticking (BEEFFS) on the board. Show them the different images of seeds from the resource sheet and see if they can guess how those seeds are dispersed. Encourage them to look at the shape of the seeds for clues as to how they are dispersed. Ask the chn: *Why is it very important for plants to have seeds that can travel? Why is it better for them to be dispersed than to just drop on the ground in a heap all together?* (The seeds will avoid overcrowding and competing with each other.)Go to the resource again and look at the images of the seeds dispersed by wind. Talk about the little feathery bits on the dandelion seed and also the flat structure of the maple seed. Ask: *How do their designs help them to float in the wind?* Explain that the chn will make a flat seed (a paper helicopter) to test outside and also will make a model of a dandelion seed. Show them the materials available for these two tasks. Split the class in half and have one half make the helicopter seeds whilst the other half make the dandelion seeds.  |
| Activities: See resource sheets for 'How to Make a Helicopter Seed' and 'How to make a dandelion seed model'. Encourage the chn making the helicopter seeds to predict how those seeds might move, before they take them into the playground. Talk about what it is about the design that makes those seeds really good at moving and wonder about how far a seed like that could actually travel. Encourage the chn to marvel at the design of a dandelion seed, looking carefully at the images on the resource sheet. |
| Plenary | Take the chn into the hall. Practise moving like helicopter seeds and dandelion seeds. Play classical/instrumental music and ask them to move like the different seeds. Use the words 'wind', 'seed' and ‘disperse.’ |
| Outcomes | Children will* Understand why it is important for a plant to spread its seeds
* Understand what is meant by the words 'dispersal/disperse', pollination' and 'seed'
* Make a seed helicopter and a dandelion seed
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