

HOW DOES YOUR GARDEN GROW?



LESSON 10: HOW ARE SEEDS DISPERSED?

Key vocabulary:

seed, fruit, dispersal, animal, wind, water and self-dispersal, explosion, sprinkling, competition

Resources:

Collection of seeds, range of reclaimed and modelling materials which may include small boxes, yoghurt pots and other containers, tubes, a range of papers and card, components for technology projects such as wheels, gears, cotton reels, polystyrene balls, fabric, feathers and other trimmings, pipe-cleaners, hooks, Velcro, balloons, plastic bags, bubble wrap, tape, glue, string, scissors and other tools as required

LESSON SUMMARY:

In this lesson children use their observations of seeds to make model seeds suited to different methods of dispersal. By the end of this lesson children will know the different methods of seed dispersal, how seeds are adapted for them and the reasons why seeds need to be dispersed away from the parent plant.

National curriculum links:

Explore the part flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

Working scientifically links:

Identifying differences, similarities or changes related to simple scientific ideas and processes

Learning intention:

To demonstrate understanding of methods of seed dispersal by designing a seed

Success criteria:

- I can make careful observations of seeds.
- I can describe different methods of seed dispersal.
- I can match features of seeds to their method of dispersal.
- I can explain why seed dispersal is important.

Scientific enquiry type:

Technology

EXPLORE:

Ask: *What would happen if all the seeds from a plant stayed in the space around the parent plant?*
Model, with children acting as the seeds around you. As they grow they are crowded and compete with each other and the parent plant for water, light and space. Establish that seeds need to be dispersed away from the parent plant to reduce competition.

Discuss with children how seeds can be carried away from the parent plant. What examples do children already know? If a school collection of fruits and seeds is available, identify seeds that the children mention and look at them closely. Use children's observations of the seeds to prompt other ideas about how they may be dispersed.

Watch the video Seed dispersal (Video 1) showing methods of seed dispersal and then use the interactive (Interactive 1), supported by real examples if available, to match the seeds to their method of dispersal.

ENQUIRE:

Tell the children they are naturalists discovering the seeds of unknown plants. Their challenge is to draw and then make a model of the seed from a new type of plant. Their fellow naturalists will have to decide how they think the seed is dispersed. Children could work individually or in pairs.

Challenge 1 Children design and draw a seed.

The children choose a seed and use it to help them to design and draw their own seed dispersed by the same method. They make a model of it which shows features linked to how it is dispersed.

Challenge 2 Children design a seed and label its features.

The children choose two or three seeds that have the same method of dispersal and consider how, in their different ways, they are suited to this method. They then design their own seed, labelling the features that make it suited to this method of dispersal and make models of them.

Challenge 3 Children draw, label and make a model of a seed.

The children draw a seed which makes imaginative use of ideas from seeds they have seen and label or annotate the features which make it suited to how it is dispersed. They make a model of it.

REFLECT AND REVIEW:

Remaining in their groups, ask children to present their seeds to each other. They peer assess according to how well the seed shows features linked to its method of dispersal. (If time permits this could be carried out as a whole class.) The seeds could also be made into an interactive display where children can guess and then reveal the method of dispersal.

Review children's drawings and models of seeds. Listen to the groups as they peer assess each others' design.

EVIDENCE OF LEARNING:

Can the children identify the different methods of dispersal? Can they match seeds to those methods? Can they design a seed which is suited to a specific method of dispersal? Can they explain, either orally or in writing, the features that make it suited to its method of dispersal? Can they recognise which method of dispersal another child's seed was designed for?