THE HIDDEN BEAUTY OF

SEEDS & FRUITS

SEED DISPERSAL

Plants have many different ways for their seeds to get to a suitable place to germinate and grow successfully. This is called Seed Dispersal.

Method	Scientific Name	Description	Examples
Gravity	Barochory	Many trees distribute their seeds by letting them drop from a great height and hoping they roll or bounce far enough away.	
Wind	Anemochory	Some seeds have developed shapes that mimic wings or parachutes to help the seed float, glide or spin on the wind to new homes.	
Water	Hydrochory	Many seeds have air pockets in their outer skins to enable them to float. Seeds which are tough enough to survive long periods in sea water are called drift seeds.	
Explode	Ballochory	Many seeds use explosive energy to catapult their seeds from the parent plant. The Hura crepitans, is commonly known as the dynamite tree due to the sound of the fruit exploding, it can propel its seeds up to 100 metres away.	
Animals	Zoochory	Some plants have seeds hidden in tempting fruits that birds and animals eat. The seeds can be taken to new locations by the animals, like in the case of squirrels collecting and storing nuts for winter. Some are actually eaten, they have a tough exterior on the seed that survives the digestive track and is excreted in a new location, birds often help in this way because they don't have hands or pockets. Some seeds use hooks or barbs to attach to an animal's fur and fall off later at a different location.	

In the exhibition many of the seeds use wind, or anemochory, as a dispersal method, growing wings or fluffy textures that help them glide, float or spin in air.

Draw a seed in the box below that uses anemochory to disperse?

Draw a line and connect the seed with its correct description of seed dispersal?

Cow's Eyes – Each wing bears one or two seeds.

Burbark – The bristles that cover the surface of its mature fruit catch onto the fur or wool of passing animals, so that the seeds can be transported to germinate far away from the parent plant.

Blister pod – this is a drift fruit. A seed which is designed to drift on sea water for long distance dispersal. The blisters are filled with air and help it float.

Medang Pajal – This a juicy fat seed that attract birds to fly off with them. The fruit has a spiny seed inside which is discarded by the birds when they find them.

Melembu – has elegant wings that glide on wind like a bird.

Coco de Mer – This seed was thought to be dispersed by sea but it has been found that actually as the world's largest fruit and the heaviest seed it lands and grows close to the parent tree. The seed contains everything it needs to establish itself and compete with its parent.

FINDING A NEW HOME

Many seeds go through an adventure to find a new home to germinate and grow in.

The *Ricinus communis* seed has a special wart like organ called a caruncle on it. Ants have learnt that they can carry the seed to their nests and use the caruncles to feed their young. The seed itself they discard on piles of the colony's waste outside the nests. The waste provides a rich earth for germination and the young plant flourishes.

The *Panda oleosa* seed has an altogether grosser journey. This plump fruit appeals to elephants who use their trunks to pick up the fruits from the ground under the trees, then swallow them whole. The seed has a protective layer which enables it to endure a dark journey through the digestive track of the elephant where it is eventually excreted out with a rich pile of dung which it uses to help establish the young plant.

Sacoglottis amazonica grows in South America often on the banks of the amazon river. Its seeds can wash out to sea in the river waters. It can float on the water for long periods waiting to wash up on a suitable beach or river side to germinate and grow. They have even been known to cross the Atlantic.

Of all the seeds in the exhibition which journey would you prefer to do if you were a seed?

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If you were a plant where would you prefer to live and which method of seed dispersal would you adapt your seeds to? Describe their journey and draw your seeds.

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USES FOR SEEDS

Many seeds are used all over the world for all sorts of reasons like food, medicine and materials. But their adaptions to suit their method of dispersal can make them a lot of fun for children.

In England, many seeds are popular for children to play with:

Children love to blow the seed heads of dandelions. They count the blows to predict the time and call them Dandelion Clocks.

Children love to bore holes in the smooth, shiny and tough chestnut seeds that they call conkers. They hang the seeds on strings and play a game trying to strike a friend's conker and split it. The surviving conker is the winner.

Children love *Galium aparine*, otherwise known as Sticky Weed. It is covered in fine hooked hairs that help it cling to clothing and hair. A favourite game is cover the back of person in front of you without them knowing.

Write down games that you play with seeds that particularly use its seed dispersal features:

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