In this activity, the children get to experience how different plants disperse their seeds.

Equipment needed – per group:

- · Paper aeroplane
- Beanbag
- Tennis ball/foam ball
- 3 differently coloured cones
- · Outside tape measure/metre wheel

Running the activity:

- Put the children into groups of 6.
- Explain to the children that they will be exploring seed dispersal methods and deciding which method disperses seeds the furthest.
- There is an optional worksheet for the children to record their findings and the key points from the discussion.

Wind Dispersal:

- · Get one member from each group to line up along a straight line.
- Give them the paper plane this represents a seed being dispersed by the wind.
- \cdot Get them to throw them as far as they can tell them to watch where the plane lands.
- Another member of their group places a cone where the plane lands this is to show how far the seed travelled.
- The children then retrieve their plane and give it to another teammate.
- They throw the plane. If they throw further, the cone gets moved to that landing site.
- · Measure the distance the furthest flying plane travelled.



Animal Dispersal:

- · Get one member from each group to line up along a straight line.
- Give them the bean bag and tell them to balance it on their head this represents a seed which is dispersed by animals.
- Get them to move in a straight line, and at intervals tell them to run, walk or 'scratch' just like an animal would do.
- · Wherever the bean bag drops is where the cone gets placed.
- · Another child from the group does the same.
- · If the bean bag gets further, then the cone gets moved.
- · Measure the distance the beanbag travelled.

Drop Dispersal:

- · Get one member from each group to line up along a straight line.
- · Give them the ball this represents a seed which is dispersed by drop dispersal.
- · Get the children to hold the ball out and then drop it.
- · Wherever the ball rolls to is where the cone gets placed.
- · Another child from the group does the same.
- If the ball gets further, then the cone gets moved.
- Measure the distance the furthest ball travelled.

Discussion points:

Which dispersal method spreads the seeds the furthest? What are the pros and cons of each dispersal method?

Wind — Pros: wide dispersal so that particular species of plant can grow in more places. Cons: seeds don't disperse well if it's raining, no control of where the seeds land.

Animal – Pros: wide dispersal so that particular species of plant can grow in more places, sometimes in a natural fertilizer (animal dung), Cons: may not land somewhere suitable for germination, may be bitten and if 'crunched' won't be a viable seed.

Drop – Pros: the seedling will grow near its parent plant (some scientists think the parent plant helps the seedling become established), Cons: not dispersed widely.









Animal Dispersal

Wind Dispersal

Drop Dispersal

Which dispersal method do you think will spread the seeds the furthest?
Why do you think that?
How far did the 'seed' travel through wind dispersal?
How far did the 'seed' travel through animal dispersal?
How far did the 'seed' travel through drop dispersal?
Which dispersal method spread the 'seeds' the furthest?



Fill in the table with the 'pros' and 'cons' of each dispersal method.

Method	Pros	Cons		
Animal Dispersal				
Wind Dispersal				
Drop Dispersal				
Extension: Can you list the pros and cons of another dispersal method you know?				



Answers







Animal Dispersal

Wind Dispersal

Drop Dispersal

Many possible answers

Which dispersal method do you think will spread the seeds the furthest?
Why do you think that?
How far did the 'seed' travel through wind dispersal?
How far did the 'seed' travel through animal dispersal?
How far did the 'seed' travel through drop dispersal?
Which dispersal method spread the 'seeds' the furthest?



Answers

Fill in the table with the 'pros' and 'cons' of each dispersal method.

Method	Pros	Cons
Animal Dispersal	Seeds have a wide dispersal so that species of plant can grow in more places, sometimes in a natural fertilizer (animal dung).	Some seeds may not land somewhere suitable for germination, may be bitten and, if 'crunched', won't be able to grow.
Wind Dispersal	Seeds have a wide dispersal so that species of plant can grow in more places.	Seeds don't disperse well if it's raining, no control of where the seeds land.
Drop Dispersal	The seedling will grow near its parent plant. If the parent plant is able to grow there, the seedling should be able to survive too.	The seeds are not dispersed widely, and seeds may get eaten by animals — like squirrels.

Extension: Can you list the pros and cons of another dispersal method you know?

Explosion dispersal. Pros — disperses the seeds far enough to not be in competition with the parent plant, but still has a good chance of landing somewhere suitable for the seed to germinate. Cons — Often the seed pod has to dry out completely for the seeds to pop out, so this method may not work as well if the weather is wet.

