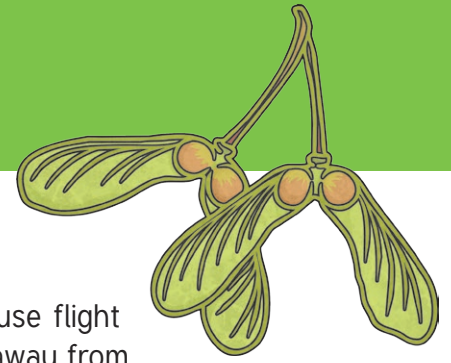




Take it Outside: Autumn

STEM: Fantastic Flight



Introduction

In 'The Origin of Fire', Fox has a desire to fly. Trees also use flight to disperse their seeds, to help them travel and germinate away from the parent tree. The sycamore produces helicopter seeds. Create your own helicopter to test flight. Design a helicopter for Fox. How far will Fox fly?

You will need:

- a helicopter seed template; [Sycamore Seed Making Helicopters Activity](#)
- plain paper/card to experiment with different helicopter designs;
- paper clips;
- scissors, pencils, chalk;
- measuring equipment.

Key Questions

- Why do trees produce seeds?
- Can you think of ways seeds are dispersed?
- How will you make your test fair?
- How will you measure accurately?

What to do:

1. Begin with a brief discussion about why seeds need to be dispersed. If possible, look at sycamore seeds and talk about how they are designed to travel away from the parent tree.
2. Use the template in this link above to make a helicopter; [Sycamore Seed Making Helicopters Activity](#)
3. Stand a metre stick in a set position – you could draw around the bottom and mark it off to help make sure you always start at the same point. You could stand the metre stick on the yard or on a sheet of large paper. Drop the helicopters from a height of 1m and record where they land (for example, with a dot). For a thorough scientific test, drop each helicopter ten times.



4. Allow each group to consider how they will record the data. Each landing point needs to be marked and the distance from the metre stick measured.
5. The results from this activity provide great opportunities for working out averages:
 - mean;
 - mode;
 - median;
 - minimum distance travelled;
 - maximum distance travelled.
6. What factors will affect how far the helicopter travels? Is wind good or bad for seed dispersal?

Ways to Support

Give clear instructions on how to record the results. Model for children to follow. Have children working in mixed ability groups. Measure to the nearest centimetre.

Ways to Extend

If we could design a helicopter for Fox, how would we alter it to help him fly further? Alter the original template and experiment with changing

- weight (adding more paperclips);
- 'arm' lengths (Do longer wings help the helicopter travel further?);
- 'tail' length (Does a shorter tail make the helicopter travel less?).

Curriculum Links

Science: Seed dispersal; set up simple scientific enquiries, comparative and fair tests; record findings using drawings and tables.

Maths: Measure and compare length.