

Plant Detectives Session plan/ideas

<https://primarylibrary.crestawards.org/all-star-challenges/61746949/36>

In this activity, children will think about seed dispersal, make and test their own helicopter seeds, and hunt for plants in surprising places.

Plan

1. Introduce the activity by reading out the story on the activity card.
2. Ask the children what they think they'll be investigating based on the story.
3. Discuss where children have seen plants growing and how they might have got there. If possible, take children outside to explore this.
4. Give out the sets of images of seeds and discuss what plants each of the seeds are from (dandelion, sycamore, poppy, burdock, oak, coconut, blackberry).
5. Discuss how the seeds might be transported (wind, water, carried or consumed by animals, seed pods that explode). Discuss the real seeds and fruit (if in kit box).
6. Show this clip about seed dispersal by air: <https://youtu.be/2rX--Y5gCnE>.
7. Their next task is to make and investigate their own helicopter seed. Demonstrate how to cut out and fold the paper helicopter seeds (cut along solid lines, fold along dashed lines). Give out the templates and ask them to make their own.
8. Model how to drop the seed and record the time it takes from when it is dropped to when it reaches the floor. Investigate whether the weight of the seed affects how long it takes by adding 1, 2 or 3 paperclips to the seed. Discuss 'fair testing' e.g. ideally dropping seeds from the same height.
9. Ask children to add 1-3 paperclips to their seed and in pairs make 3 recordings for each seed of how long it takes to fall to the ground, and fill in their worksheet. Ask them to fill in any gaps by sharing results with their peers.
10. As a class, discuss their findings, and why they think weight is important.
11. Using the electric fan to model wind, demonstrate how the time a seed takes to fall can affect the distance it travels.
12. Suggest/discuss occupations and situations that might require the skills/knowledge they've developed e.g. botanist, conservation scientist (<https://nustem.uk/primarycareers/#tab-id-11>)
13. Discuss related activities they could do (at home).
14. Give out stickers/stamps for their passport.

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Tips and safety

- Remind children to be careful with paperclips.
- If going outside, make sure students don't put anything in their mouths and make sure they wash their hands after.

Additional ideas/extension/home activities

- Look for plants in surprising places and draw a picture of your favourite one using the worksheet, or take a photo of it and stick it in.
 - Do you know or can you find out what plant it is? Why not try asking a friend, a teacher, or a family member? Or try researching online, or using an identification chart if you have one.
- Create a map of the different kinds of plants in your garden or at your school. Do the plants cluster in specific places? How do you think they got there?
- Paint/draw a picture, or write a poem/story about the journey of a seed.
- Find out about someone that learns about plants as part of their job:
 - Interview someone in your family
 - Research plant scientists online, for example:
 - Jeanne Baret - first woman to sail around the world:
<https://www.nybg.org/blogs/science-talk/2014/03/the-amazing-feat-of-jeanne-baret/>
 - Aché Atta-Boateng - studies cacao trees (where chocolate comes from!):
<https://www.oxfordsparks.ox.ac.uk/content/ach%C3%A9-atta-boateng>
 - What skills do you think they need? What do you like about their job? You could write a story about them or their work and present it to your family/friends/teacher.
- Check out Science Oxford's Blossoming Paper Flowers Challenge:
<https://scienceoxford.com/resources/science-oxford-challenges/blossoming-paper-flowers/> - make your own folded paper flower and watch what happens when you float it on water.

Plant Detectives

Today we are thinking about **WHERE PLANTS GROW**

Remember to write your name on your paper helicopter seed!

How many paperclips?	How many seconds did it take for the seed to reach the ground?		
	First try	Second try	Third try
1			
2			
3			

How many paperclips did the slowest seed have?

Plant Detectives

This is a picture of the plant I found:



Where is your plant growing?

How do you think the plant got to this place?