

Outdoor Learning, First Level STEM 1

Learning experience	
Seeds go pop	
CfE Level – First	
Experiences and Outcomes and associated benchmarks/skills	
<p>E&Os SCN 1-02a I can explore examples of food chains and show an appreciation of how animals and plants depend on each other for food. SCN 1-03a I can help to design experiments to find out what plants need in order to grow and develop. I can observe and record my findings and from what I have learned I can grow healthy plants in school.</p>	<p>BMs/Skills Observes, collects and measures the outcomes from growing plants in different conditions, for example by varying levels of light, water, air, soil and heat.</p>
Overview of learning experience	
Pupils to explore seed dispersal and a plants life cycle.	
Outline of learning	
<p>LI/SC</p> <ul style="list-style-type: none"> ● I can understand how and why plants disperse seeds. ● I understand the things a plant needs to grow. ● I can design an experiment to demonstrate the effect of conditions on plant growth. 	<p>Resources Balloon, seeds, pin, picture cards of other plants with seeds. Pots, soil, space to keep the plants.</p>
<p>Description of learning experience and assessment opportunities Teacher to put a tablespoon of bird seeds/poppyseeds/pumpkin/sunflower/cress seeds into a balloon and blow it up then tie the end. Teacher should ensure pupils are all a safe distance and then pop the balloon with a pin. Seed will disperse. Teacher to explain that this is how some plants continue the existence of their</p>	

species. The seeds land and then grow a new.

<https://www.bbc.co.uk/bitesize/topics/zxfrwmn/articles/z28dpbk>

Pupils could be sent on a hunt for other plants in their environment which disperse their seeds or the teacher could hide images of plants in the playground. Pupils could then have a discussion on how the seeds from these plants are dispersed. Pupils could look at where the seeds from the balloon popping have landed. Do they think the seeds will germinate where they have landed?

This could prompt a discussion on what plants need to germinate or grow. Look at the plants in the playground environment (this could be grass or weeds). What do they need to grow?

Ask pupils to draw a diagram of the life cycle of a plant on the playground with chalk.

If you have used cress or sunflower seeds you could collect those which have not landed well and plant them up and start a growing project.

Get pupils to consider the things a plant needs to grow. Can they change one of these things (each group should have 2 plants and give one plant everything and give the other plant either less water or less light or less soil or less heat) and conduct a science enquiry as to what difference this makes to the plants growth?

Consideration of risk

Ensure pupils are far enough away before balloon is popped. Trying this before the pupils are present would allow you to work out the distance the seeds will travel.

Taking it further – what else could you do?

Create a plant life cycle display.

Research how plants disperse their seeds.

Create graphs of plant growth over time.

Give presentations on your findings.

Capture timelapse images of your plants growth.