Primary Science & Technology Bulletin



Ideas and inspiration for teachers in Primary Schools and S1/S2





Figure 1 - Bird food, lard, plastic pots, string and twigs are all that are needed to make a simple bird feeder.



Figure 2 - Tie the string to the middle of the stick or twig.

A variety of easily obtainable resources can be used to make the feeders (Figure 1).

Take a piece of strong string or twine approximately 40 cm in length and tie this to the middle of a stick or twig (Figure 2).



Encouraging wildlife into the school setting can help to stimulate learners' interest in the natural world and their local environment.

Making a simple birdfeeder to attract a variety of birds could form part of a larger study of local wildlife and may help to improve a conservation area - no matter how small the outdoor area may be.

Take a plastic pot and pierce a hole in the base - this should be done by an adult. Thread the string through the hole so that the stick is near the open end of the pot (Figure 3).

Place lard and bird food into a bowl and mix well. We found that 250 g of lard was sufficient to fill 5 plastic pots but this will depend upon their volume. Solid vegetable fat could be used as an alternative to lard. Be aware that some bird foods contain peanuts and would not be suitable for use in classes where there may be the possibility of triggering peanut allergies. Cheese, suet pellets or raisins could also be added to the mix at this stage.



Figure 3 - Thread the string through the hole in the top of the plastic pot.



Figure 4 - Mix lard and bird food together thoroughly.

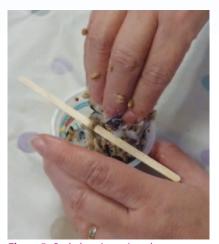


Figure 5 - Push the mixture into the pot around the string.



Figure 6 - Pull the string to secure the stick.



Figure 7 - Bird feeders ready to be hung outside.

Fill the plastic pots with the mixture, using hands or a spoon, packing the mixture in really firmly (Figure 5). Once the pot is full pull the string to secure the stick (Figure 6). The stick or twig will provide a perch for the visiting birds. Place the finished birdfeeders, into a cool place (or fridge) to allow the lard to solidify - as the lard may have melted as it was mixed (Figure 7). The feeders can be hung as they are, or they can be removed from the pot by squeezing the sides to release the solidified contents which should now hold their shape (Figure 8).

Pine cone bird feeders

An alternative bird feeder can be made using pine cones and a range of ingredients (Figure 9). Large pine cones are the most effective as they are easy to handle and can be sourced from a variety of places. String is looped around the pine cone, being secured firmly between the scales before tying. The suet, sultanas and cheese can simply be pushed into the spaces between the scales (Figure 9). If you have some lard and feed mixture left over from the yoghurt pot feeder this can also be pushed into the pine cone scales (Figures 10, 11).

Learners could suggest appropriate places to position the feeders so that visiting birds may be observed easily. The constituents of the feeders could be varied and a note of the species of bird visiting each could be noted. Once birds begin arriving at the feeders learners can be encouraged to make observations. Learners could use a field guide [1] and further research to identify the bird species visiting the feeders. Learners may wish to take part in the RSBP Big Garden Birdwatch [2]; an annual event that takes place each January which encourages members of the public to participate in a nationwide survey of garden birds.



Figure 8 - Bird feeder removed from pot.



Figure 9 - A simple bird feeder can be made using pine cones, string, cheese, suet pellets and sultanas.

I have observed living things in the environment over time and am becoming aware of how they depend upon each other - SCN 0-01a.

I can explore examples of food chains and show an appreciation of how animals and plants depend upon each other for food - SCN 1-02a.

References

- [1] www.field-studies-council.org
- [2] www.rspb.org.uk/birdwatch

I can use my knowledge of the interaction between plants and animals in ecosystems, food chains and webs. I have contributed to the design or conservation of a wildlife area - SCN 2-02a.

Health and safety considerations

- Holes in the plastic pots should be made by an adult.
- Learners should be reminded that the foods used are not for human consumption.
- Be aware of the risk of allergies which may be triggered by the ingredients.



Figure 10 - Cheese, suet and raisins can be pushed between the scales of the pine cone.



Figure 11 - Pine cone bird feeders.

In memoriam



All at SSERC were deeply saddened to hear of the death in November of Brenda Keogh. Brenda, along with her husband Stuart Naylor, formed the internationally-renowned partnership whose ideas and activities have improved the learning and teaching of science. Brenda and Stuart's work, often in collaboration with other leading educators, is widely acclaimed across Scotland and many of you will be familiar with their publications which include Concept Cartoons and Active Assessment in Science.

Over a number of years, Brenda has made a key contribution to SSERC professional development courses, in particular those for primary teachers and secondary student teachers. Through her inspirational workshops, Brenda has motivated teachers to reflect upon and enrich their practice. She has had a profound effect on the way that science is taught in many classrooms across Scotland and beyond.

Always a consummate professional, Brenda was generous with her time and ideas and she was also great fun to work with. Over the past few years, when she has been fighting cancer and undergoing difficult treatment, Brenda approached her illness with formidable positivity and continued to work - including travelling to Dunfermline to take part in SSERC courses. We at SSERC are privileged to have been able to call Brenda a friend as well as a colleague and we will miss her.