



Environmental Science Project

March 2016 to February 2017

Introduction

At Sonning Common Primary School, we are lucky enough to have two Forest School sites in our grounds, where we engage Primary age children with the natural local environment through outdoor exploration and play.

The aims of the competition, to stimulate interest in science and the environment, have challenged us to think what works well and what we can do differently to ensure that all our children become future custodians of our environment with a One Planet – Our Planet approach to education and life.

Over the course of the year we ran several projects across the school to both teach the children about the environment and to allow them to make beneficial changes to our school environment.

The main projects were

- Measuring visitor impact on Forest School sites
- Planting and improving Forest School
- ECO-council
- Growing/Storing Food experiments
- Weather investigations
- Wildlife

Measuring Visitor Impact on Forest School Sites

Our teams of Digital Leaders (selected from Years 3-6, one team from March 2016 to July 2016, and another from September 2016 to February 2017) were tasked with researching how visitors to the sites impact on the woodland flora and fauna. We decided to 'rest' one of our sites for a term and the Digital Leaders made a time lapse video of both sites as evidence of results.

This involved the digital leaders making a platform and 'shoe' in each site, to ensure the camera would be in the correct position; then making a rota and ensuring pictures were taken each break time whatever the weather.

The video is included on the DVD as part of our submission.



Site A in March 2016



and the same site in November 2016

The paths and open areas of the visited site (A) (with the shelter) remained clear underfoot, where new growth was kept down by footfall showing the environmental impact of the children in a very clear, visual way.

The children found the difference in the two sites was apparent; the rested site (B) becoming very overgrown, with the logs of the fire circle being completely covered in stinging nettles and ferns.



Site B in March 2016



and the same site in November 2016

It is hoped that by engaging the pupils in the care of the local environment by assessing our own impact and working to protect the woodland on site; that we will instil in them a care of the wider environment and a keener sense of our individual impact on it.

Planting and Improving Forest School

As part of the engagement of children in care of the Forest School environments; they have protected bluebell bulbs by encircling them with logs; planted native species, including cowslips, primrose and honeysuckle on site to encourage insect and thereby animal life and created bug houses to home creepy crawlies.



Planting honeysuckle and trees



The children moved this Copper Beech sapling from the field to prevent it from being mowed down by the groundsmen.

Children sold seedlings of trees grown on site and potted up by reception age children at the summer fair. This has encouraged the planting of native species in the local community.



Potting up trees for selling at the summer fair

Eco-council & Energy Monitors

Our Head teacher leads an ECO-council (one child per KS2 class) who are the pupil's voice on all things environmental. In response to the competition this year they have introduced 'Waste Week', 'Earth Hour' and many more activities throughout the year. ECO council are our Energy Monitors who assess how energy efficient each class has been each week, with the winner being announced in assembly. They also make recommendations regarding saving energy, for example 'Last one out, lights off'.

Growing/Storing Food Experiments

Our reception children (Kites) have grown food on site, then cooked and eaten it. They grew potatoes and salad crops in the school allotment and Kites garden.



We held a potato growing competition from March to July, across the whole school, each class being provided with potatoes to find the class with the heaviest crop and the class with most potatoes grown.



The potato competition was won by Kites for most potatoes grown and Mrs Thurlow / Mrs Skidmore Year one for heaviest crop - both classes were awarded a 'Green Science' potato clock as a prize.

We have also encouraged local pre—Pre-schools to grow their own by giving them potato growing kits and then getting them to send in their results.

The local Sonning Common Village Gardeners volunteer to come in and help the children with the planting and care of their crops



We make our own compost on site, using all the leaves and cutting, this year we will be using the compost for growing more vegetables with our lunchtime Gardening Club (run by our Y2 teacher Mrs Fraser).

The children ran scientific experiments looking at the effect of food storage and seasonality; touching on food miles and local food supplies.



The children have made apple tarte tatin (which was then cooked over the fire in Forest School) with apples grown on site. The apples were kept in the storage container over winter and the children found out they still tasted lovely.

They have collected elderflowers and made elderflower cordial around the fire.



Enjoying elderflower cordial

In the summer, they harvested young nettles for nettle risotto, learning that nettles contain more vitamin C than spinach)



By using food stuffs grown on site we engage the children with seasonality, sourcing food as locally as possible, and the storage of foodstuffs from one season to the next.

Weather Investigations

At each session, we consider the weather – looking each week at how the weather has changed; discussing the season and the implications; when and how seeds are dispersed; when is a time for growth; what happens to wildlife over the winter.

Children are immersed in nature; autumn leaf pictures, tree rubbings, they have found fungus; growing in the paddock, and on fallen logs on site.



A pigeon egg was found (too shiny for an owl egg we discovered), as well as a beautifully crafted nest of moss lined with soft, downy feathers. A chrysalis attached to the oak tree, secured by a protective membrane. Sycamore keys are thrown to see whose goes the farthest and think about why they need to be away from the mother plant.



Frost angels

Stinkhorn fungus in Site A
The children hated the smell of this!

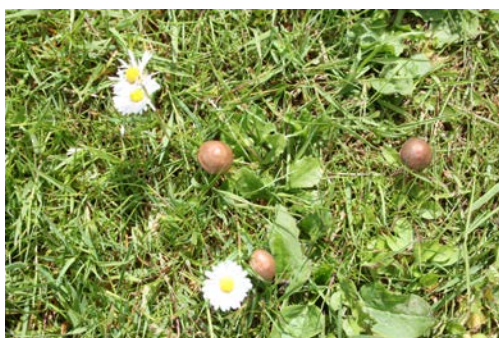
Investigations into cold weather produced some lovely thoughts about frost angels and why cold weather is just as important for plants as warm weather.



Ice crystals on a leaf



Ice by the fire, exploring why it melts more quickly by the fire than away from the fire



Fungus on the playing field

Wildlife

As well as increasing the number of bird boxes in our school grounds by 10, we have also donated 14 bird boxes and identification posters to local preschools to encourage their involvement with wildlife and birds.



Kites setup an experiment to watch what happens when you look after ladybird eggs.

There are 46 species of ladybird (Coccinellidae) resident in Britain and the recent arrival of the harlequin ladybird has the potential to jeopardise many of these. The Harlequin Ladybird Survey monitors its spread across Britain and assess its impact on native ladybirds.

Kites bolstered the indigenous population by incubating and releasing native ladybirds on site.



We also incubated butterflies and released these into the school grounds.



Kites incubated eggs and grew chicks in class; then in a run on the lawn outside reception. These chicks were then taken to a new home by a family from school



Conclusion

The children are fascinated by the world around them; we teach them to notice the small things and acknowledge that we are sharing the environment we live in.

Our entry to the Henley Schools Environmental Science Competition aims to remind the whole school; through engagement in these projects and presentation of the time lapse film during assembly; of our responsibility, both locally and further afield, to care for and nurture our environment.