



Education & Outreach: Using Local Libraries

For as long as I can remember, I have been a borrower at Abington library in Northampton. Some two years ago, following discussions with local librarian, Maeve Orr, we decided to stage a regular series of school holiday events that might be of interest to library visitors, both young and old alike. We wanted to provide activities that would be exciting and hands on, and, being secretary of Northamptonshire Natural History Society's microscopy group, I suggested perhaps something to do with microscopes might form a suitable topic for development.



Our first couple of sessions at the library were limited to using just two or three microscopes but such was the interest and enthusiasm generated by participants, we later decided to enlist the help of the Natural History Society who were more than generous in purchasing four additional low power stereo microscopes specifically for outreach work in schools, libraries and on exhibition days.

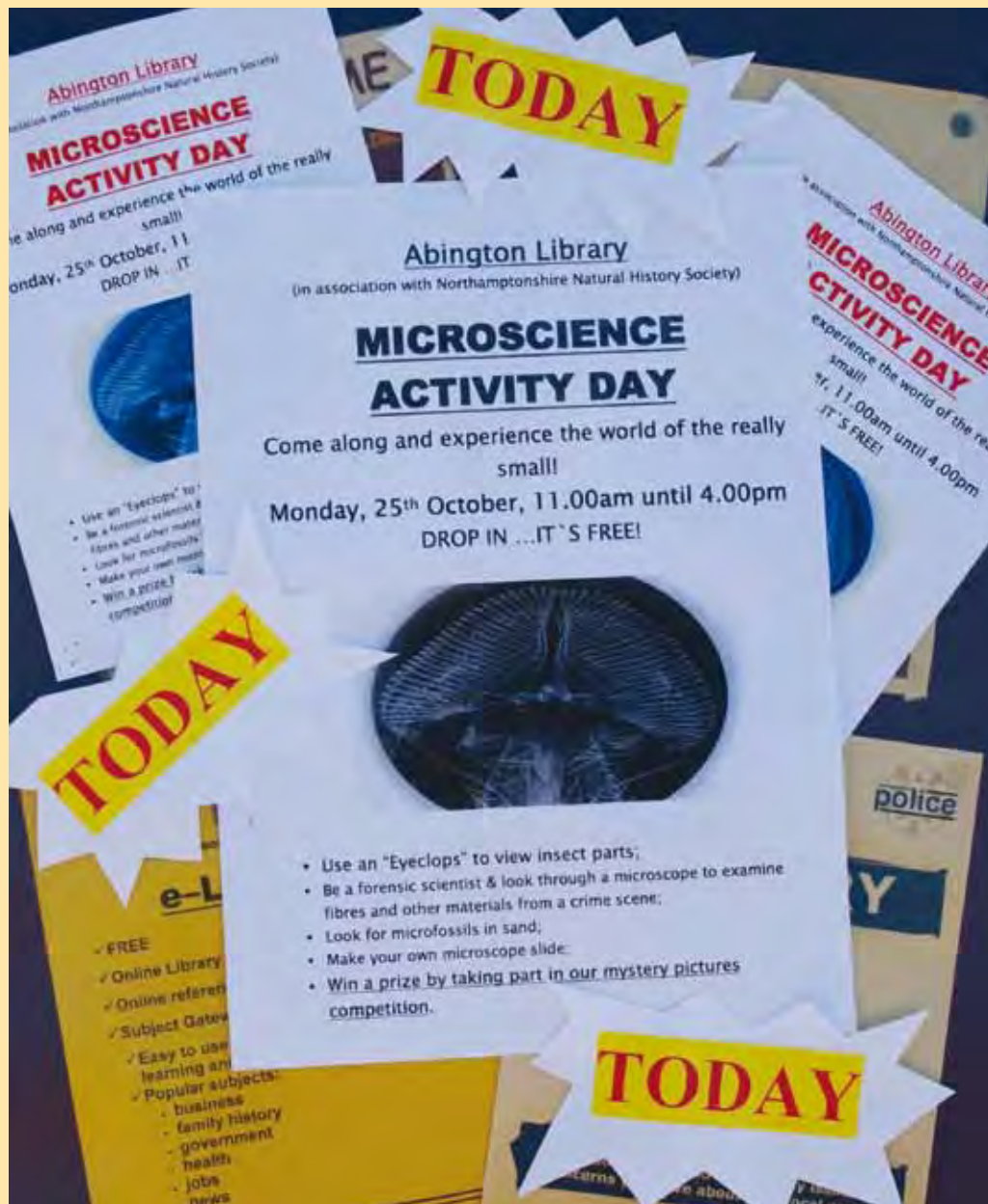
Our latest “Microscience Activity Day” took place during Monday of October half term last year from 11am until 4pm and was a huge success. During the course of the day, we counted at least 39 children of various age groups plus a large number of accompanying adults who came along to sample what we had to offer.

The programme was kept deliberately simple and flexible in that it provided a range of free activities

designed to interest and engage people of all ages and ensure everyone had a positive and memorable experience. From a practical point of view, I have found that children, in particular, enjoy using low power stereo microscopes and hence these instruments, with magnifications of $\times 20$ and $\times 40$ and large working distances between objectives and specimen, were preferred to the more traditional compound microscopes. Also, stereo microscopes have the added advantage of being easier to focus

and are built to provide erect and naturally aligned images with a sense of depth.

Various specimens were available, including coins, stamps, fabric samples, feathers, leaves, prepared slides of whole insects and insect parts, common salt, sand, pieces of rock, shells and bark from trees. Some of these specimens were stuck on labelled cards for easier manipulation and identification. As well as the stereo microscopes, we had an



"Eyeclops" camera connected to a large plasma TV screen. The children particularly enjoyed using this item as it enabled them to examine their own hair and skin and even to look in detail at carpet fibres and what gets in between them! Exclamations such as "Wow!", "Cool!" and "Gross!" were frequent reactions to this activity.

As well as looking at a wide range of specimens, we also wanted children to have a go at making their

own cardboard slides which they could label and take away with them at the end. The slides were pre-cut from good quality art board obtained from one of the town's craft shops. This activity proved very popular, as the children were able to choose a suitable dark or light background from squares and circles of coloured card which was stuck to the slide prior to mounting each object. Slides made in this way included parts of a feather, strews of foraminiferous sand (from Dunnett Bay,



near Thurso), samples of cotton fibres and crystals of common salt. Dry mounting these specimens was neither difficult nor complicated as ordinary sticks of PVA adhesive were used as the mounting medium.

An added attraction to the event was a "Guess the Photo competition" with photomicrographs of everyday objects, such as common salt crystals, the tip of a ball point pen, part of a plastic ruler and bits of newsprint.

Not surprisingly, some of the children brought their own samples to look at. For example, one group were keen to examine leaves from plants growing outside and were able to observe the stomatal openings and comment upon the fact that some leaves had more leaf hairs on their lower surfaces compared to their top surfaces and even suggested possible reasons why this might be advantageous to the plant.

I hope I have managed to convey a little of what this collaboration between the Northamptonshire Natural History Society and our local library has managed to achieve. Following on from these activity days, other libraries have recently expressed interest and local schools have requested more



information, including visits by members of the Society. Unfortunately, many of our members work during the day and this is proving difficult to organise. However, I am currently working on some ideas involving schools as I believe education is a vital part of our outreach work. In particular, as a retired teacher, I understand that teachers appreciate ways in which some of these activities can best be incorporated within the existing curriculum, rather than just creating separate topics or "add ons". Thus, for example we are exploring how the Society can provide an input into a history topic on Victorians common to many primary schools at Key Stage 2.



This would involve staging a Victorian Microscope slide event, including looking at Victorian slides and artefacts as well as children making their own cardboard slides. The Society also wants to sponsor a schools' photographic competition entitled "The weird and wonderful world of the really small", incorporating aspects of Art, CDT and ICT.

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