

LOOKING AT NATURE

AUTUMN

A series provided by the BBC at the request of the Educational Broadcasting Council for the United Kingdom

Lower Junior
Thursdays 2.05-2.20
Radio 4 VHF/FM

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Introduction

Looking at Nature is back this year with some old and some new programmes.

In Unit 1 are some of the best ideas from the Natural Investigator's Office last year, chosen because you told us they worked so well. Though the outdoor adventures and follow-up ideas are repeated from last year the letters section will be updated each week. This means children can still write in to the series and keep in contact about their projects and their latest discoveries (see letters section on page 3).

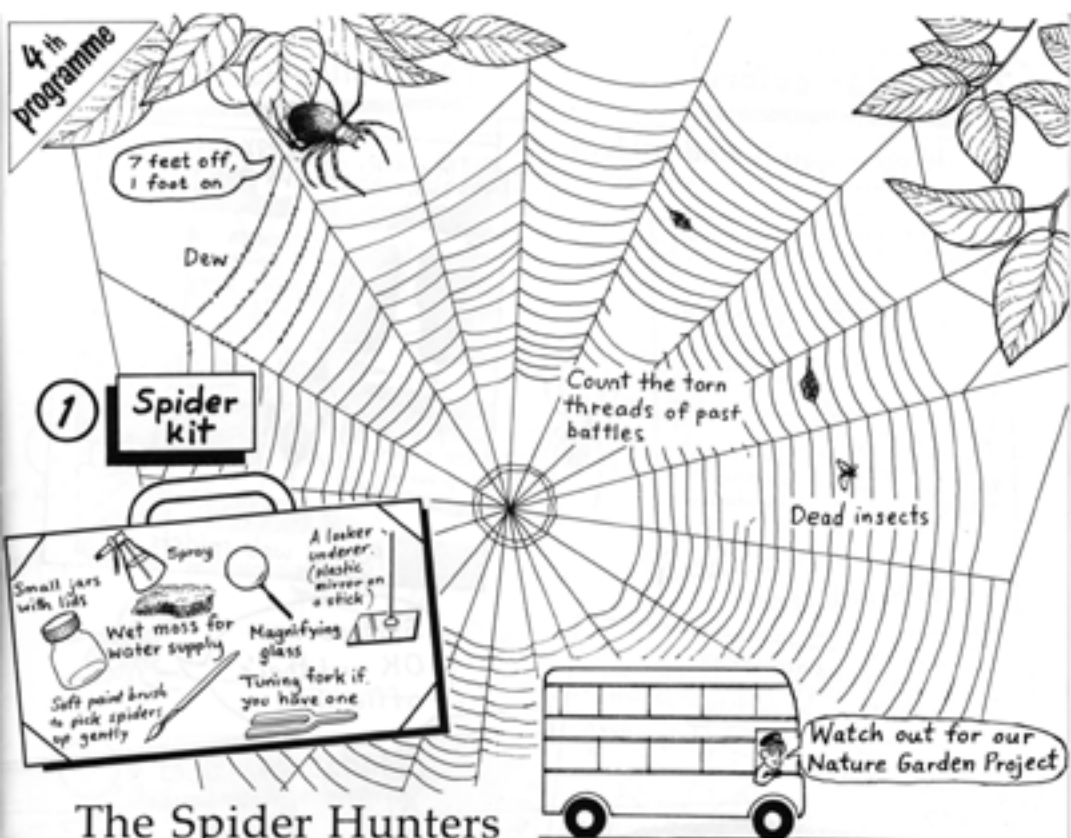
In Unit 2, programmes are planned to keep everyone busy with project work should poor weather in the winter months limit outdoor visits. Also the projects give children an immediate experience of places they may have little opportunity to visit.

The aim of the series is to involve children in primary science. Not only will they be encouraged to observe, but also interpret, investigate and record their work.

Teachers who have used the series before will know how the programmes stimulate project work rather than provide information. Teachers new to the series can be reassured that the project ideas are easy to prepare and create great excitement and enthusiasm. Each *Looking at Nature* programme contains at least one project which is easy and simple enough to be carried out straight after the broadcast, and these notes offer suggestions as to how to tackle this simple project as well as other ideas your class might like to try.

The projects in this booklet are described in easy-to-follow frames. Teachers have successfully cut out these frames, stuck them on a sheet of paper, added their own instructions and photocopied the results so *Natural Investigators* can explore on their own.





The Spider Hunters

1 Spider Kit. Separate small jars are necessary for each spider, as they are unscrupulous beasts, and will cheerfully eat any neighbours; wet moss or cotton wool for moisture; a soft paintbrush to pick the spiders up without damage. For more excitement, take a tuning fork, a pair of tweezers works just as well, and a 'looker underer', which is our name for a plastic mirror with a hole punched through it, attached to a stick.

2 Spider Safari. On your spider safari you might meet any of 600 kinds of spider in Britain, so it's easier for children to classify them by the webs they make rather than name. *Orb web makers.* Look for non-stick and sticky strands. Test with paintbrush. *Funnel web spider.* Try the tuning fork and see if the spider is at home. *Hammock web spider.* Look for the supporting lines of silk above the hammock web designed to trap small flying insects. They then fall into the jaws of the spider, as it hangs on the underside of the hammock. *Sheet web spider.* Somebody will bring you a house spider from home, either taken from its sheet web or retrieved from the bath. *No web spiders.* Check also to see if you can find the tiny zebra spider, which is common on walls. Wolf spiders will sometimes be carrying their egg cocoons, and then they should not be caught. Remember every living thing brought out of its environment should be cared for.

3 Spider Collecting. A vacant funnel web spider hole can be explored by putting a paintbrush or crochet hook into the hole. Look out for debris of eaten animals

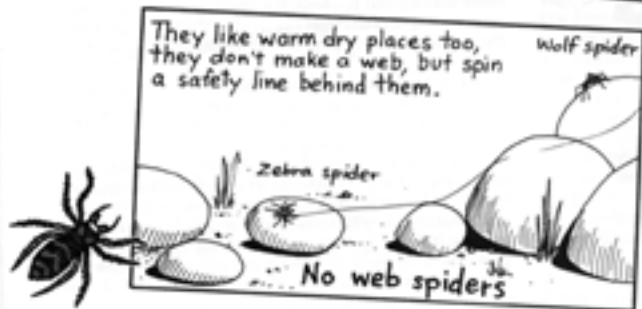
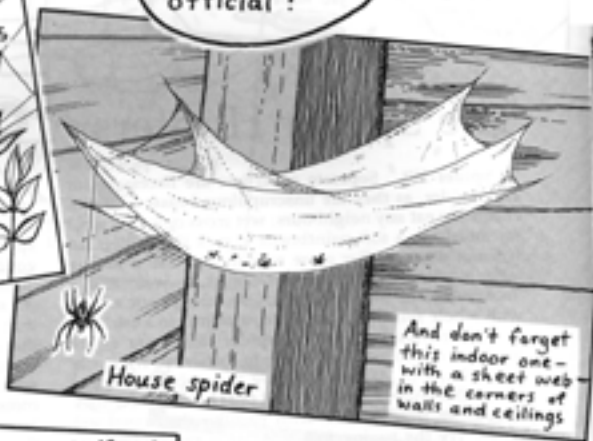
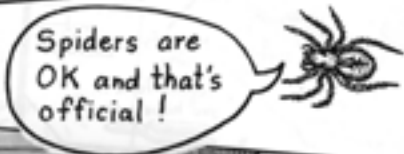
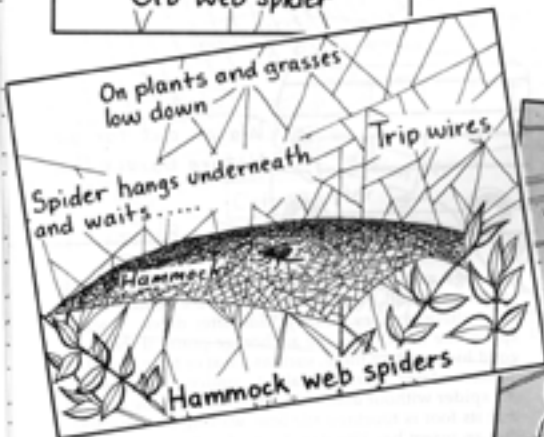
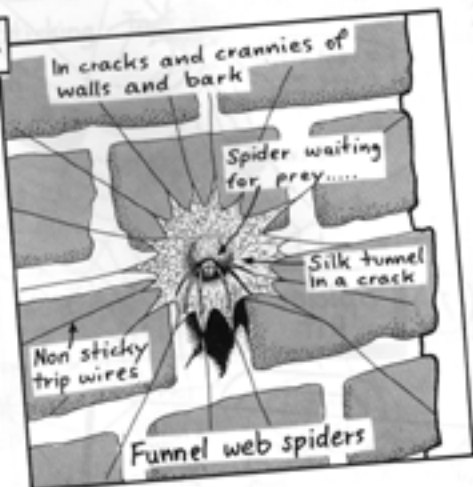
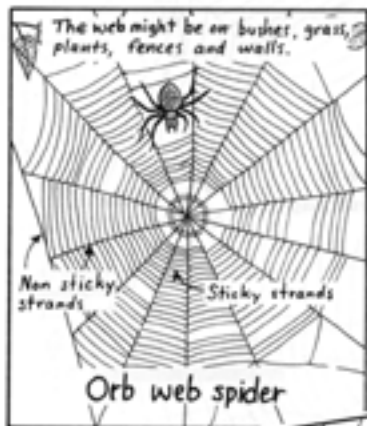
and legs and skin shed by the spider. The orb web spider may still be upside-down in the centre of the web, although they usually hide after dawn. Track a spoke line back up to the anchorage point. If there's a good hiding place there, such as a leaf or twig, hold the 'looker underer' mirror stealthily under it, and watch the spider without disturbing it. Look carefully and see that its foot is touching the line, waiting for the signal that an insect has blundered into the sticky part of the web. To use the tuning fork, very gently touch the web with the vibrating end. If you're skilful, the spider will come smartly out to check the menu. Children can then become hunters themselves, and catch the spider with the paintbrush and pop it into a vacant jar.

4 Back at School. Plastic sweet jars make spider Ideal Homes, and are usually obtainable from the confectioner's. They should be furnished appropriately for each spider, and this can be discussed in class. What did each spider have outside? An orb web spider will need a forked stick or similar structure. Will coathanger wire do? A funnel web spider needs something holey, and a hammock web won't work unless there are stalks to hang it. Feed spiders with small flies if you can, but provided they have wet moss or cotton wool they will live safely for up to a week. Remember to put dark card round the jars at all times. Remove to see what happens. They must be restored to their habitat by the children, to foster a caring attitude for living things.

2

Spider safari

Where you'll find spiders.....



..... and what you will see

3 Spider collecting

If you can't see your spider, use the 'lookerunderer' first.

If you still don't find them use the tuning fork -

(a) Hit it on something hard.



(b) Touch the web or funnel with the fork. The spider will feel the movement in its web and come out to catch its dinner.



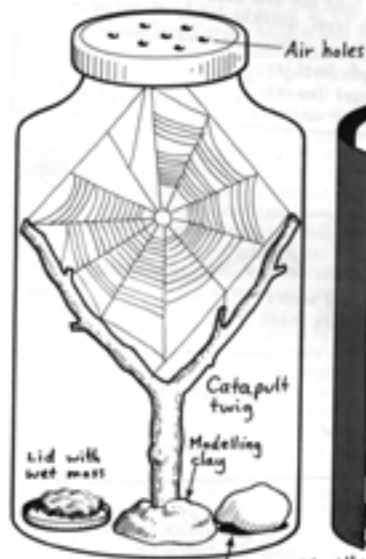
(c) Pick the spider up gently with your soft paint brush, and put it in a separate jar with the wet moss. Put the lid on.

Magic painting



4 Back at school

The Ideal Home Exhibition (You'll need some big plastic sweet jars)



Orb web home



Funnel web home
(A jumping spider would)



Hammock web home