

HABITAT STUDY

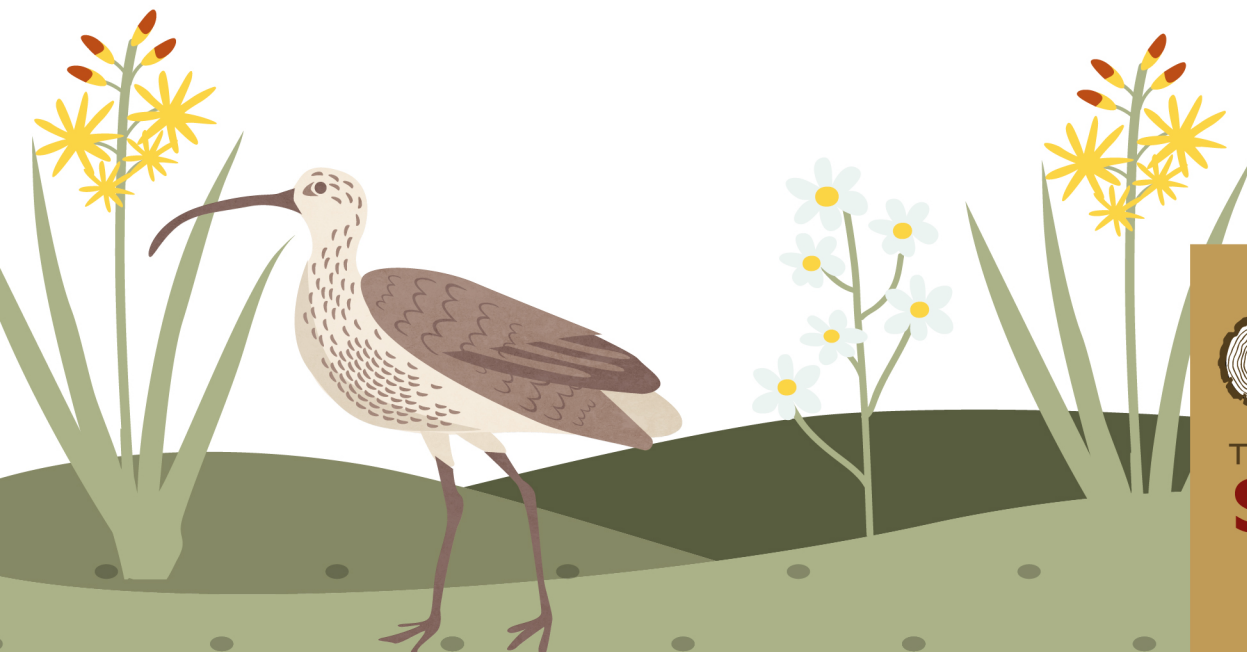
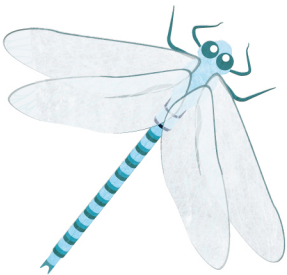
LAWN, HEATH AND WOODLAND. CONTINUED...



SCIENCE OBJECTIVES



- observing closely, using simple equipment
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions.
- identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other
- identify and name a variety of plants and animals in their habitats, including micro-habitats
- describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.



NEW FOREST
**COMMONING
CHAMPION
BADGE**



HABITAT STUDY

LAWN, HEATH AND WOODLAND.

RESOURCES: VIEWFINDERS, HAND LENSES, COLLECTING CARDS WITH DOUBLE SIDED TAPE.

POSSIBLE ADDITIONAL RESOURCES: RECORDING SHEET, RULERS, ID CHARTS,

READY:

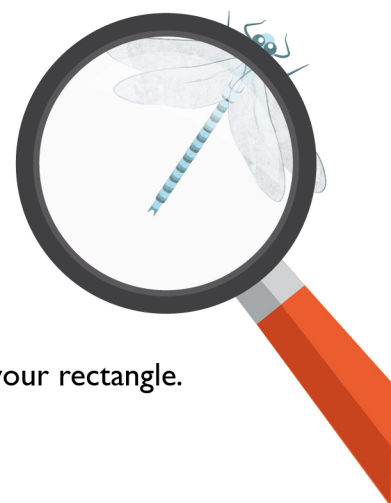
This activity will encourage children to look very closely at three different habitats to compare them. The children can record the different shapes of leaves and the number of different species within their postcard sized viewfinder. It will also draw their attention to the small areas of bare earth which are essential for new seeds to germinate. The children can also begin to identify the plants within each habitat. Adults need to question children about the soil, light and moisture in each habitat. It is more important that the children identify the different leaf shapes and structure of the plants, than try to name each plant. Understanding that in the New Forest very very small plants thrive because they are safer from the munching teeth of ponies and that this is one of the reasons the New Forest is special. Identify each habitat for the children and only move when all groups are ready.

GET SET:

Split the group in to pairs. Give each pair a hand lens, a ruler and a viewfinder.

Go!

1. Begin on the lawn.
2. Put your viewfinder down on the ground. Kneel down and look very closely at your rectangle.
3. Talk to your partner about what you can see.
 - a. How many different shaped leaves can you find?
 - i. is it like grass?
 - ii. is it feathery?
 - iii. is it spoon like?
 - iv. is it round?
 - b. What fraction or percentage of bare ground is there?
 - i. Why is this important?
 - c. How high are the plants? Why is this?
4. Can you name any plants in your viewfinder?
5. Can you see any fauna in this habitat?
6. Talk to your partner about the food chain for this site.
7. Record your findings in preparation for your report.
8. Repeat in at least one other habitat –woodland, or heathland.





RESOURCES: CLIPBOARDS, PAPER, PENCILS, ID BOOKS, OR SUGAR PAPER AND PENS. IF WET SET UP TARP TO SIT UNDER.

READY

This is a talking and observing activity which will encourage the children to identify the different species in each layer of the woodland.

British woodlands provide a precious mosaic of habitats for a wide range of native trees, plants and animals. Whilst every woodland is unique, affected by geology, soil conditions, topography, historical management and other factors there are many commonalities. The woodland can be described in horizontal and vertical layers. There are four above ground layers in the horizontal structure, the tree canopy, shrub layer, field layer and ground layer as well as the underground layer.

- The tree canopy is made up of dominant canopy trees such as oak and ash with emergent beech trees often breaking the canopy. Each of these trees offer a varying dense canopy with some shading out completely the lower layers whilst others such as ash allow in lots of light, allowing a range of layers beneath the canopy. The understorey of the canopy is made up of young trees as well as trees which can grow and reproduce in lower light levels, often evergreens such as yew and holly. As well as lower growing crab apple, wild cherry, rowan and field maple. Birds such as crossbills, redwings and firecrests feed high in the canopy.
- In the lower shrub layer you will find species such as hazel, hawthorn and blackthorn and younger trees such as holly and crab apples. Long tailed tits can be seen feeding in this layer as well as the caterpillars of moths and butterflies.
- The field layer varies considerably depending on the light levels and shade from the canopy. A taller layer often includes bracken, bramble and rose-bay willow herb. With lower bluebells, smaller ferns, wood anemone and many others exploiting the dappled shade. Here you will find small mammals such as woodmouse. Depending on the ground conditions you may also find frogs, toads and many small invertebrates.
- A ground layer includes very low growing plants, mosses, lichens, and seedlings of the taller plants in the higher layers.
- The underground layer is made up of roots, fungi and soil microorganisms. The roots of most trees spread to or beyond the canopy and often in the top 30cm of soil. The most important aspect of this layer is the mycorrhiza fungi. It's symbiotic relationship with the other elements of the woodland are fundamental for the health of all the plants and trees. Many plants get most of their nutrients and water not from their roots but from the mycorrhiza within the roots.

